

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/01/2020

Reviewed on 04/01/2020

1 Identification

- **Product identifier**
- **Trade name:** GRAY RESIN THERMOPLASTIC
- **Article number:** 1210
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS06 Skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.

Acute Tox. 2 H310 Fatal in contact with skin.

Acute Tox. 3 H331 Toxic if inhaled.



GHS08 Health hazard

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

- **Label elements**

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS06



GHS07



GHS08

- **Signal word** Danger

(Contd. on page 2)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/01/2020

Reviewed on 04/01/2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 1)

· **Hazard-determining components of labeling:**

Poly(Methyl Methacrylate)

iron

dibenzoyl peroxide

Graphite

· **Hazard statements**

Toxic if swallowed or if inhaled.

Fatal in contact with skin.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause respiratory irritation.

May cause damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

Do not breathe dust/fume/gas/mist/vapors/spray.

Do not get in eyes, on skin, or on clothing.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Immediately call a poison center/doctor.

Specific treatment (see on this label).

Rinse mouth.

If on skin: Wash with plenty of water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a poison center/doctor.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Call a poison center/doctor if you feel unwell.

Get medical advice/attention if you feel unwell.

Take off immediately all contaminated clothing and wash it before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 3

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 3

Fire = 0

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/01/2020

Reviewed on 04/01/2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 2)

· **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

7439-89-6	iron	>25-≤50%
9011-14-7	Poly(Methyl Methacrylate)	>25-≤50%
7782-42-5	Graphite	>10-≤25%
94-36-0	dibenzoyl peroxide	≤2.5%

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Remove breathing apparatus only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Information for doctor:**
· **Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/01/2020

Reviewed on 04/01/2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 3)

- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· PAC-1:		
7439-89-6	iron	3.2 mg/m ³
94-36-0	dibenzoyl peroxide	15 mg/m ³
· PAC-2:		
7439-89-6	iron	35 mg/m ³
94-36-0	dibenzoyl peroxide	1,200 mg/m ³
· PAC-3:		
7439-89-6	iron	150 mg/m ³
94-36-0	dibenzoyl peroxide	7,000 mg/m ³

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/01/2020

Reviewed on 04/01/2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 4)

- **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Solid material

Color: Grey

- **Odor:** Mild

- **Odor threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 3,000 °C (37.400 °F)

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Not flammable.

- **Ignition temperature:** 304 °C (579.2 °F)

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**

Lower: Not determined.

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/01/2020

Reviewed on 04/01/2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 5)

Upper:	Not determined.
· Vapor pressure:	Not determined.
· Density:	Not determined.
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
VOC content:	0.00 % 0.0 g/l / 0.00 lb/gal
· Solids content:	76.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
- The product shows the following dangers according to internally approved calculation methods for preparations:
 - Toxic
 - Irritant
 - Very toxic
 - Danger through skin absorption.
- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)		
9011-14-7	Poly(Methyl Methacrylate)	3
94-36-0	dibenzoyl peroxide	3

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/01/2020

Reviewed on 04/01/2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 6)

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety Health Administration)**

None of the ingredients is listed.

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:** No further relevant information available.

· **Persistence and degradability** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **UN-Number**

· **DOT, ADR, IMDG, IATA**

UN2810

· **UN proper shipping name**

· **DOT**

Toxic, liquids, organic, n.o.s. (Poly(Methyl Methacrylate), iron)

· **ADR**

2810 TOXIC LIQUID, ORGANIC, N.O.S. (Poly(Methyl Methacrylate), iron)

· **IMDG, IATA**

TOXIC LIQUID, ORGANIC, N.O.S. (Poly(Methyl Methacrylate), iron)

· **Transport hazard class(es)**

· **DOT**



· **Class**

6.1 Toxic substances

(Contd. on page 8)

Safety Data Sheet


acc. to OSHA HCS

Printing date 04/01/2020

Reviewed on 04/01/2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 7)

· Label	6.1
· ADR, IMDG, IATA	
	
· Class	6.1 Toxic substances
· Label	6.1
· Packing group	
· DOT, ADR, IMDG, IATA	II
· Environmental hazards:	Not applicable.
· Special precautions for user	Warning: Toxic substances
· Hazard identification number (Kemler code):	60
· EMS Number:	F-A,S-A
· Stowage Category	B
· Stowage Code	SW2 Clear of living quarters.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L
· ADR	
· Excepted quantities (EQ)	Code: E4 Maximum net quantity per inner packaging: 1 ml Maximum net quantity per outer packaging: 500 ml
· IMDG	
· Limited quantities (LQ)	100 ml
· Excepted quantities (EQ)	Code: E4 Maximum net quantity per inner packaging: 1 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (POLY(METHYL METHACRYLATE), IRON), 6.1, II

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

94-36-0 dibenzoyl peroxide

· TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

(Contd. on page 9)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/01/2020

Reviewed on 04/01/2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 8)

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

94-36-0 dibenzoyl peroxide

A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS06

GHS07

GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**

Poly(Methyl Methacrylate)

iron

dibenzoyl peroxide

Graphite

· **Hazard statements**

Toxic if swallowed or if inhaled.

Fatal in contact with skin.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause respiratory irritation.

May cause damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

Do not breathe dust/fume/gas/mist/vapors/spray.

Do not get in eyes, on skin, or on clothing.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

(Contd. on page 10)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/01/2020

Reviewed on 04/01/2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 9)

If swallowed: Immediately call a poison center/doctor.

Specific treatment (see on this label).

Rinse mouth.

If on skin: Wash with plenty of water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a poison center/doctor.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Call a poison center/doctor if you feel unwell.

Get medical advice/attention if you feel unwell.

Take off immediately all contaminated clothing and wash it before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** 04/01/2020 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

*OSHA: Occupational Safety **Health***

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Tox. 3: Acute toxicity – Category 3

Acute Tox. 2: Acute toxicity – Category 2

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Safety Data Sheet

according to WHS Regulations

Printing date 01.04.2020

Revision: 01.04.2020

1 Identification

- **Product identifier**
- **Trade name:** GRAY RESIN THERMOPLASTIC
- **Article number:** 1210
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- ProSciTech Pty Ltd
11 Carlton Street, Kirwan QLD 4817 Australia
Telephone Number: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)
Emergency Contact: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)
Website: ems.proscitech.com
- Emgrid Australia Pty. Ltd.
P.O. Box 118
The Patch VIC 3792
Australia
Tel: 03 9752 1785
Fax: 03 9752 1784
Website: www.emgrid.com.au
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazard(s) Identification

- **Classification of the substance or mixture**



GHS06 skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.

Acute Tox. 2 H310 Fatal in contact with skin.

Acute Tox. 3 H331 Toxic if inhaled.



GHS08 health hazard

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

(Contd. on page 2)

Safety Data Sheet according to WHS Regulations

Printing date 01.04.2020

Revision: 01.04.2020

Trade name: **GRAY RESIN THERMOPLASTIC**

(Contd. of page 1)

*Eye Irrit. 2A H319 Causes serious eye irritation.**Skin Sens. 1 H317 May cause an allergic skin reaction.**STOT SE 3 H335 May cause respiratory irritation.***· Label elements****· GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).**· Hazard pictograms**

GHS06

GHS07

GHS08

· Signal word *Danger***· Hazard-determining components of labelling:***Poly(Methyl Methacrylate)**iron**dibenzoyl peroxide**Graphite***· Hazard statements***Toxic if swallowed.**Fatal in contact with skin.**Toxic if inhaled.**Causes skin irritation.**Causes serious eye irritation.**May cause an allergic skin reaction.**May cause respiratory irritation.**May cause damage to organs through prolonged or repeated exposure.***· Precautionary statements***Do not breathe dust/fume/gas/mist/vapours/spray.**Do not get in eyes, on skin, or on clothing.**Wash thoroughly after handling.**Do not eat, drink or smoke when using this product.**Use only outdoors or in a well-ventilated area.**Contaminated work clothing should not be allowed out of the workplace.**Wear protective gloves/protective clothing/eye protection/face protection.**IF SWALLOWED: Immediately call a POISON CENTER/ doctor.**Specific treatment (see on this label).**Rinse mouth.**IF ON SKIN: Wash with plenty of water.**IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.**Call a POISON CENTER/doctor.**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.**Continue rinsing.**Call a POISON CENTER/doctor if you feel unwell.**Get medical advice/attention if you feel unwell.**Take off immediately all contaminated clothing and wash it before reuse.**If skin irritation or rash occurs: Get medical advice/attention.**If eye irritation persists: Get medical advice/attention.**Store in a well-ventilated place. Keep container tightly closed.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.*

(Contd. on page 3)

Safety Data Sheet

according to WHS Regulations

Printing date 01.04.2020

Revision: 01.04.2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 2)

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition and Information on Ingredients

- **Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

7439-89-6	iron	>25-≤50%
9011-14-7	Poly(Methyl Methacrylate)	>25-≤50%
7782-42-5	Graphite	>10-≤25%
94-36-0	dibenzoyl peroxide	≤2.5%

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First Aid Measures

- **Description of first aid measures**
- **General information:**
 - Immediately remove any clothing soiled by the product.
 - Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
 - Remove breathing equipment only after contaminated clothing have been completely removed.
 - In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**
 - Supply fresh air or oxygen; call for doctor.
 - In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
 - Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Do not induce vomiting; call for medical help immediately.
- **Information for doctor:**
 - **Most important symptoms and effects, both acute and delayed** No further relevant information available.
 - **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

(Contd. on page 4)

Safety Data Sheet

according to WHS Regulations

Printing date 01.04.2020

Revision: 01.04.2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 3)

- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and Storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls and personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

(Contd. on page 5)

Safety Data Sheet according to WHS Regulations

Printing date 01.04.2020

Revision: 01.04.2020

Trade name: **GRAY RESIN THERMOPLASTIC**

(Contd. of page 4)

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

9 Physical and Chemical Properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Solid material

Colour: Grey

· **Odour:** Mild

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: 3,000 °C

· **Flash point:** Not applicable.

· **Flammability (solid, gas):** Not applicable.

· **Ignition temperature:** 304 °C

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

· **Explosive properties:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

· **Vapour pressure:** Not determined.

· **Density:** Not determined.

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with water:**

Not miscible or difficult to mix.

(Contd. on page 6)

Safety Data Sheet according to WHS Regulations

Printing date 01.04.2020

Revision: 01.04.2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 5)

· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
VOC (EC)	0.00 %
Solids content:	76.0 %
· Other information	No further relevant information available.

10 Stability and Reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological Information

- **Information on toxicological effects**
- **Acute toxicity**
- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation** Sensitisation possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Toxic
Irritant
Very toxic
Danger through skin adsorption.

12 Ecological Information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

(Contd. on page 7)

Safety Data Sheet

according to WHS Regulations

Printing date 01.04.2020

Revision: 01.04.2020

Trade name: GRAY RESIN THERMOPLASTIC


(Contd. of page 6)

- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· UN-Number · ADG, IMDG, IATA	UN2810
· UN proper shipping name · ADG · IMDG, IATA	2810 TOXIC LIQUID, ORGANIC, N.O.S. (Poly(Methyl Methacrylate), iron) TOXIC LIQUID, ORGANIC, N.O.S. (Poly(Methyl Methacrylate), iron)
· Transport hazard class(es) · ADG, IMDG, IATA	
	
· Class · Label	6.1 Toxic substances. 6.1
· Packing group · ADG, IMDG, IATA	II
· Environmental hazards:	Not applicable.
· Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category · Stowage Code	Warning: Toxic substances. 60 F-A,S-A B SW2 Clear of living quarters.
· Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADG · Limited quantities (LQ) · Excepted quantities (EQ)	100 ml Code: E4 Maximum net quantity per inner packaging: 1 ml Maximum net quantity per outer packaging: 500 ml

(Contd. on page 8)

AU

Safety Data Sheet

according to WHS Regulations

Printing date 01.04.2020

Revision: 01.04.2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 7)

· Transport category	2
· Tunnel restriction code	D/E
<hr/>	
· IMDG	
· Limited quantities (LQ)	100 ml
· Excepted quantities (EQ)	Code: E4
	Maximum net quantity per inner packaging: 1 ml
	Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (POLY(METHYL METHACRYLATE), IRON), 6.1, II

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Australian Inventory of Chemical Substances**

All ingredients are listed.

· **Standard for the Uniform Scheduling of Medicines and Poisons**

94-36-0 | dibenzoyl peroxide

S2, S4, S5

· **Australia: Priority Existing Chemicals**

None of the ingredients is listed.

· **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS06 GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labelling:**

Poly(Methyl Methacrylate)

iron

dibenzoyl peroxide

Graphite

· **Hazard statements**

Toxic if swallowed.

Fatal in contact with skin.

Toxic if inhaled.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause respiratory irritation.

May cause damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

Do not breathe dust/fume/gas/mist/vapours/spray.

Do not get in eyes, on skin, or on clothing.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

(Contd. on page 9)

Safety Data Sheet

according to WHS Regulations

Printing date 01.04.2020

Revision: 01.04.2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 8)

Wear protective gloves/protective clothing/eye protection/face protection.

IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

Specific treatment (see on this label).

Rinse mouth.

IF ON SKIN: Wash with plenty of water.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Call a POISON CENTER/doctor.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Call a POISON CENTER/doctor if you feel unwell.

Get medical advice/attention if you feel unwell.

Take off immediately all contaminated clothing and wash it before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 3: Acute toxicity - oral – Category 3

Acute Tox. 2: Acute toxicity - dermal – Category 2

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2020

Reviewed on 04/01/2020

1 Identification

- **Product identifier**
- **Trade name:** GRAY RESIN THERMOPLASTIC
- **Article number:** 1210
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 Electron Microscopy Sciences
 1560 Industry Road
 USA-Hatfield, PA 19440
 Tel: 215-412-8400 Fax: 215-412-8450
 email: info@emsdiasum.com
 www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**
 ChemTrec 1-800-424-9300 Contract CCN7661
 1-703-527-3887

2 Hazard identification

- **Classification of the substance or mixture**



GHS06 Skull and crossbones

Acute Toxicity (Oral) - Category 3

H301 Toxic if swallowed.

Acute Toxicity (Dermal) – Category 2

H310 Fatal in contact with skin.

Acute Toxicity (Inhalation) - Category 3

H331 Toxic if inhaled.



GHS08 Health hazard

Specific Target Organ Toxicity - Repeated Exposure -
Category 2H373 May cause damage to organs through
prolonged or repeated exposure.

GHS07

Skin Irritation - Category 2

H315 Causes skin irritation.

Eye Irritation - Category 2A

H319 Causes serious eye irritation.

Skin Sensitizer - Category 1

H317 May cause an allergic skin reaction.

Specific Target Organ Toxicity - Single Exposure -
Category 3

H335 May cause respiratory irritation.

- **Label elements**

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS06



GHS07



GHS08

(Contd. on page 2)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2020

Reviewed on 04/01/2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 1)

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

Poly(Methyl Methacrylate)

iron

dibenzoyl peroxide

Graphite

· **Hazard statements**

Toxic if swallowed or if inhaled.

Fatal in contact with skin.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause respiratory irritation.

May cause damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

Do not breathe dust/fume/gas/mist/vapours/spray.

Do not get in eyes, on skin, or on clothing.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Immediately call a poison center/doctor.

Rinse mouth.

IF ON SKIN: Gently wash with plenty of soap and water.

If on skin: Wash with plenty of water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a poison center/doctor.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Call a poison center/doctor if you feel unwell.

Get medical advice/attention if you feel unwell.

Take off contaminated clothing and wash it before reuse.

Specific measures (see on this label).

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Take off immediately all contaminated clothing.

Wash contaminated clothing before reuse.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 3

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 3

Fire = 0

Reactivity = 0

CA

(Contd. on page 3)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2020

Reviewed on 04/01/2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 2)

3 Composition/Information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

7439-89-6	iron	30-60% w/w *
9011-14-7	Poly(Methyl Methacrylate)	30-60% w/w *
7782-42-5	Graphite	10-30% w/w *
94-36-0	dibenzoyl peroxide	0.5-1.5% w/w *

* Actual concentration ranges are withheld as a trade secret.

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Remove breathing apparatus only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

(Contd. on page 4)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2020

Reviewed on 04/01/2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 3)

- **Reference to other sections**
See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/ Personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

7439-89-6 iron

EV	TWA: 1* 5** mg/m ³ as iron; *salts, water-soluble; **welding fume
----	---

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

(Contd. on page 5)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2020

Reviewed on 04/01/2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 4)

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Solid material

Color: Grey

- **Odor:** Mild

- **Odor threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 3,000 °C

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Not flammable.

- **Ignition temperature:** 304 °C

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

- **Vapor pressure:** Not determined.

- **Density:** Not determined.

- **Relative density** Not determined.

- **Vapor density** Not determined.

- **Evaporation rate** Not determined.

- **Solubility in / Miscibility with**

Water: Not miscible or difficult to mix.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**

Dynamic: Not determined.

(Contd. on page 6)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2020

Reviewed on 04/01/2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 5)

Kinematic:	Not determined.
Solvent content:	
Solids content:	76.0 %
Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Toxic
Irritant
Very toxic
Danger through skin absorption.

- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)		
9011-14-7	Poly(Methyl Methacrylate)	3
94-36-0	dibenzoyl peroxide	3

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water

(Contd. on page 7)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2020

Reviewed on 04/01/2020

Trade name: GRAY RESIN THERMOPLASTIC



(Contd. of page 6)

- Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.
 - **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
- **DOT/TDG, ADR, IMDG, IATA** UN2810
- **UN proper shipping name**
- **DOT/TDG** Toxic, liquids, organic, n.o.s. (Poly(Methyl Methacrylate), iron)
- **ADR** 2810 TOXIC LIQUID, ORGANIC, N.O.S. (Poly(Methyl Methacrylate), iron)
- **IMDG, IATA** TOXIC LIQUID, ORGANIC, N.O.S. (Poly(Methyl Methacrylate), iron)
- **Transport hazard class(es)**
- **DOT/TDG (Transport dangerous goods):**
- 
- **Class** 6.1 Toxic substances
- **Label** 6.1
- **ADR, IMDG, IATA**
- 
- **Class** 6.1 Toxic substances
- **Label** 6.1
- **Packing group**
- **DOT/TDG, ADR, IMDG, IATA** II
- **Environmental hazards:** Not applicable.
- **Special precautions for user** Warning: Toxic substances
- **Hazard identification number (Kemler code):** 60
- **EMS Number:** F-A,S-A
- **Stowage Category** B

(Contd. on page 8)

-CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2020

Reviewed on 04/01/2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 7)

· Stowage Code	SW2 Clear of living quarters.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT/TDG	
· Quantity limitations	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L
· ADR	
· Excepted quantities (EQ)	Code: E4 Maximum net quantity per inner packaging: 1 ml Maximum net quantity per outer packaging: 500 ml
· IMDG	
· Limited quantities (LQ)	100 ml
· Excepted quantities (EQ)	Code: E4 Maximum net quantity per inner packaging: 1 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (POLY(METHYL METHACRYLATE), IRON), 6.1, II

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

94-36-0 dibenzoyl peroxide

· TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

· Canadian substance listings:

· Canadian Domestic Substances List (DSL)

All ingredients are listed.

· Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients is listed.

· Canadian Ingredient Disclosure list (limit 1%)

94-36-0 dibenzoyl peroxide

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



GHS06 GHS07 GHS08

- **Signal word** Danger

(Contd. on page 9)

CA

Safety Data Sheet according to HPR, Schedule 1

Printing date 04/01/2020

Reviewed on 04/01/2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 8)

· **Hazard-determining components of labeling:**

Poly(Methyl Methacrylate)

iron

dibenzoyl peroxide

Graphite

· **Hazard statements**

Toxic if swallowed or if inhaled.

Fatal in contact with skin.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause respiratory irritation.

May cause damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

Do not breathe dust/fume/gas/mist/vapours/spray.

Do not get in eyes, on skin, or on clothing.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Immediately call a poison center/doctor.

Rinse mouth.

IF ON SKIN: Gently wash with plenty of soap and water.

If on skin: Wash with plenty of water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a poison center/doctor.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Call a poison center/doctor if you feel unwell.

Get medical advice/attention if you feel unwell.

Take off contaminated clothing and wash it before reuse.

Specific measures (see on this label).

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Take off immediately all contaminated clothing.

Wash contaminated clothing before reuse.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of the latest revision of the safety data sheet** 04/01/2020 / -

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

(Contd. on page 10)

Safety Data Sheet
according to HPR, Schedule 1

Printing date 04/01/2020

Reviewed on 04/01/2020

Trade name: GRAY RESIN THERMOPLASTIC

NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative

(Contd. of page 9)

CA

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 01.04.2020

Revision: 01.04.2020

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** GRAY RESIN THERMOPLASTIC
- **Article number:** 1210
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS06 skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.

Acute Tox. 3 H311 Toxic in contact with skin.



GHS08 health hazard

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

Acute Tox. 4 H332 Harmful if inhaled.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2020

Revision: 01.04.2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 1)

· Hazard pictograms



GHS06 GHS08

· Signal word Danger

· Hazard-determining components of labelling:

iron

Poly(Methyl Methacrylate)

Graphite

dibenzoyl peroxide

· Hazard statements

H301+H311 Toxic if swallowed or in contact with skin.

H332 Harmful if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P321 Specific treatment (see on this label).

P330 Rinse mouth.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P361+P364 Take off immediately all contaminated clothing and wash it before reuse.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

· Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 7439-89-6 EINECS: 231-096-4	iron Acute Tox. 2, H300; STOT RE 2, H373; Skin Irrit. 2, H315	>25-≤50%
CAS: 9011-14-7	Poly(Methyl Methacrylate) Acute Tox. 3, H311; Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	>25-≤50%
CAS: 7782-42-5 EINECS: 231-955-3	Graphite Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	>10-≤25%
CAS: 94-36-0 EINECS: 202-327-6	dibenzoyl peroxide Org. Perox. B, H241; Eye Irrit. 2, H319; Skin Sens. 1, H317	≤2.5%

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 01.04.2020

Revision: 01.04.2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 2)

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Remove breathing equipment only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· **After inhalation:**

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:** Do not induce vomiting; call for medical help immediately.

· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

· **5.3 Advice for firefighters**

· **Protective equipment:** Mouth respiratory protective device.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures** Not required.

· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

· **Information about fire - and explosion protection:** Keep respiratory protective device available.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2020

Revision: 01.04.2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 3)

- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

GB

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 01.04.2020

Revision: 01.04.2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 4)

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form: Solid material

Colour: Grey

· Odour: Mild

· Odour threshold: Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: 3,000 °C

· Flash point: Not applicable.

· Flammability (solid, gas): Not applicable.

· Ignition temperature: 304 °C

· Decomposition temperature: Not determined.

· Auto-ignition temperature: Product is not selfigniting.

· Explosive properties: Product does not present an explosion hazard.

· Explosion limits:

Lower: Not determined.

Upper: Not determined.

· Vapour pressure: Not determined.

· Density: Not determined.

· Relative density: Not determined.

· Vapour density: Not determined.

· Evaporation rate: Not determined.

· Solubility in / Miscibility with water:

Not miscible or difficult to mix.

· Partition coefficient: n-octanol/water: Not determined.

· Viscosity:

Dynamic: Not determined.

Kinematic: Not determined.

· Solvent content:

VOC (EC) 0.00 %

Solids content: 76.0 %

· 9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity

· 10.1 Reactivity: No further relevant information available.

· 10.2 Chemical stability

· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

· 10.3 Possibility of hazardous reactions: No dangerous reactions known.

· 10.4 Conditions to avoid: No further relevant information available.

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 01.04.2020

Revision: 01.04.2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 5)

- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
Toxic if swallowed or in contact with skin.
Harmful if inhaled.
- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**
May cause respiratory irritation.
- **STOT-repeated exposure**
May cause damage to organs through prolonged or repeated exposure.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 01.04.2020


Revision: 01.04.2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 6)

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number · ADR, IMDG, IATA	UN2810
· 14.2 UN proper shipping name · ADR · IMDG, IATA	2810 TOXIC LIQUID, ORGANIC, N.O.S. (Poly(Methyl Methacrylate), iron) TOXIC LIQUID, ORGANIC, N.O.S. (Poly(Methyl Methacrylate), iron)
· 14.3 Transport hazard class(es) · ADR, IMDG, IATA	
	
· Class · Label	6.1 Toxic substances. 6.1
· 14.4 Packing group · ADR, IMDG, IATA	II
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category · Stowage Code	Warning: Toxic substances. 60 F-A,S-A B SW2 Clear of living quarters.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR · Limited quantities (LQ) · Excepted quantities (EQ)	100 ml Code: E4 Maximum net quantity per inner packaging: 1 ml Maximum net quantity per outer packaging: 500 ml
· Transport category · Tunnel restriction code	2 D/E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	100 ml Code: E4 Maximum net quantity per inner packaging: 1 ml Maximum net quantity per outer packaging: 500 ml

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 01.04.2020

Revision: 01.04.2020

Trade name: GRAY RESIN THERMOPLASTIC

(Contd. of page 7)

· UN "Model Regulation":	UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (POLY(METHYL METHACRYLATE), IRON), 6.1, II
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SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

- H241 Heating may cause a fire or explosion.
- H300 Fatal if swallowed.
- H302 Harmful if swallowed.
- H311 Toxic in contact with skin.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H373 May cause damage to organs through prolonged or repeated exposure.

· Abbreviations and acronyms:

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- VOC: Volatile Organic Compounds (USA, EU)
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Org. Perox. B: Organic peroxides – Type B
- Acute Tox. 2: Acute toxicity - oral – Category 2
- Acute Tox. 4: Acute toxicity - oral – Category 4
- Acute Tox. 3: Acute toxicity - dermal – Category 3
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- Skin Sens. 1: Skin sensitisation – Category 1
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
- STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 01.04.2020

Herziening van: 01.04.2020

RUBRIEK 1: Identificatie van de stof of het mengsel en van de vennootschap/onderneming

· 1.1 Productidentificatie

· Handelsnaam: GRAY RESIN THERMOPLASTIC

· Artikelnummer: 1210

· 1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik

Geen verdere relevante informatie verkrijgbaar.

· Toepassing van de stof / van de bereiding Laboratoriumchemicaliën

· 1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad

· Fabrikant/leverancier:

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: info@emsdiasum.com

www.emsdiasum.com

Aurion

Binnenhaven 5

6709 PD Wageningen

The Netherlands

Tel: 31 317 415094

Fax: 31 317 415955

email: info@aurion.nl

· Inlichtingengevende sector: Product safety department

· 1.4 Telefoonnummer voor noodgevallen:

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

RUBRIEK 2: Identificatie van de gevaren

· 2.1 Indeling van de stof of het mengsel

· Indeling overeenkomstig Verordening (EG) nr. 1272/2008



GHS06 doodshoofd met gekruiste beenderen

Acute Tox. 3 H301 Giftig bij inslikken.

Acute Tox. 3 H311 Giftig bij contact met de huid.



GHS08 gezondheidsgevaar

STOT RE 2 H373 Kan schade aan organen veroorzaken bij langdurige of herhaalde blootstelling.



GHS07

Acute Tox. 4 H332 Schadelijk bij inademing.

Skin Irrit. 2 H315 Veroorzaakt huidirritatie.

Eye Irrit. 2 H319 Veroorzaakt ernstige oogirritatie.

Skin Sens. 1 H317 Kan een allergische huidreactie veroorzaken.

STOT SE 3 H335 Kan irritatie van de luchtwegen veroorzaken.

(Vervolg op blz. 2)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 01.04.2020

Herziening van: 01.04.2020

Handelsnaam: GRAY RESIN THERMOPLASTIC

(Vervolg van blz. 1)

- **2.2 Etiketteringselementen**
- **Etikettering overeenkomstig Verordening (EG) nr. 1272/2008**
Het product is geclassificeerd en geëtiketteerd volgens de CLP-verordening.
- **Gevarenpictogrammen**



GHS06 GHS08

- **Signaalwoord** Gevaar
- **Gevaaraanduidende componenten voor de etikettering:**
ijzer
Poly(Methyl Methacrylate)
grafiet
dibenzoylperoxide
- **Gevaaraanduidingen**
H301+H311 Giftig bij inslikken en bij contact met de huid.
H332 Schadelijk bij inademing.
H315 Veroorzaakt huidirritatie.
H319 Veroorzaakt ernstige oogirritatie.
H317 Kan een allergische huidreactie veroorzaken.
H335 Kan irritatie van de luchtwegen veroorzaken.
H373 Kan schade aan organen veroorzaken bij langdurige of herhaalde blootstelling.
- **Veiligheidsaanbevelingen**
P301+P310 NA INSLIKKEN: onmiddellijk een ANTIGIFCENTRUM/arts raadplegen.
P321 Specifieke behandeling vereist (zie op dit etiket).
P330 De mond spoelen.
P305+P351+P338 BIJ CONTACT MET DE OGEN: voorzichtig afspoelen met water gedurende een aantal minuten; contactlenzen verwijderen, indien mogelijk; blijven spoelen.
P361+P364 Verontreinigde kleding onmiddellijk uittrekken en wassen alvorens deze opnieuw te gebruiken.
P405 Achter slot bewaren.
P501 De inhoud en de verpakking verwerken volgens de plaatselijke/regionale/nationale/internationale voorschriften.
- **2.3 Andere gevaren**
- **Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.

RUBRIEK 3: Samenstelling en informatie over de bestanddelen

- **3.2 Chemische karakterisering: Mengsels**
- **Beschrijving:** Mengsel van na elkaar aangevoerde stoffen met onveerbarelijke bijmengingen.

· Gevaarlijke inhoudstoffen:

CAS: 7439-89-6 EINECS: 231-096-4	ijzer ☠ Acute Tox. 2, H300; ☠ STOT RE 2, H373; ⚠ Skin Irrit. 2, H315	>25-≤50%
CAS: 9011-14-7	Poly(Methyl Methacrylate) ☠ Acute Tox. 3, H311; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	>25-≤50%
CAS: 7782-42-5 EINECS: 231-955-3	grafiet ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	>10-≤25%

(Vervolg op blz. 3)

Veiligheidsinformatieblad volgens 1907/2006/EG, Artikel 31

datum van de druk: 01.04.2020

Herziening van: 01.04.2020

Handelsnaam: GRAY RESIN THERMOPLASTIC

(Vervolg van blz. 2)

CAS: 94-36-0

dibenzoylperoxide

≤2,5%

EINECS: 202-327-6

Org. Perox. B, H241; Eye Irrit. 2, H319; Skin Sens. 1, H317

· Aanvullende gegevens:

De woordelijke inhoud van de opgegeven aanwijzingen inzake de mogelijke gevaren is te vinden in hoofdstuk 16.

RUBRIEK 4: Eerstehulpmaatregelen

· 4.1 Beschrijving van de eerstehulpmaatregelen**· Algemene informatie:**

Verontreinigde kleding onmiddellijk uittrekken.

Het is mogelijk dat vergiftigingssymptomen pas na vele uren optreden. Om deze reden is medische controle gedurende minstens 48 uur na een ongeval noodzakelijk.

Ademhalingstoestel pas afnemen nadat de verontreinigde kleding verwijderd is.

Bij onregelmatige ademhaling of ademstilstand kunstmatige ademhaling toepassen.

· Na het inademen:

Verse lucht of zuurstof toedienen; deskundige medische hulp inroepen.

Bij bewusteloosheid ligging en vervoer in stabiele zijligging.

· Na huidcontact: Onmiddellijk met water en zeep afwassen en goed naspoelen.**· Na oogcontact:**

De ogen gedurende verscheidene minuten onder stromend water afspoelen terwijl de oogspleet geopend blijft. Bij aanhoudende klachten een dokter raadplegen.

· Na inslikken: Geen braken teweegbrengen en onmiddellijk medische hulp raadplegen.**· 4.2 Belangrijkste acute en uitgestelde symptomen en effecten** Geen verdere relevante informatie verkrijgbaar.**· 4.3 Vermelding van de vereiste onmiddellijke medische verzorging en speciale behandeling**

Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 5: Brandbestrijdingsmaatregelen

· 5.1 Blusmiddelen**· Geschikte blusmiddelen:** Brandblusmaatregelen op omgeving afstemmen.**· 5.2 Speciale gevaren die door de stof of het mengsel worden veroorzaakt**

Geen verdere relevante informatie verkrijgbaar.

· 5.3 Advies voor brandweelieden**· Speciale beschermende kleding:** Ademhalingstoestel aantrekken.

RUBRIEK 6: Maatregelen bij het accidenteel vrijkomen van de stof of het mengsel

· 6.1 Persoonlijke voorzorgsmaatregelen, beschermde uitrusting en noodprocedures Niet nodig.**· 6.2 Milieuvoorzorgsmaatregelen:** Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.**· 6.3 Insluitings- en reinigingsmethoden en -materiaal:**

Met vloeistofbindend materiaal (zand, bergmeel, zuurbinder, universele binder, zaagmeel) opnemen.

Besmet materiaal zoals afval volgens punt 13 verwijderen.

Voor voldoende ventilatie zorgen.

· 6.4 Verwijzing naar andere rubrieken

Informatie inzake veilig gebruik - zie hoofdstuk 7.

Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.

Informatie inzake berging - zie hoofdstuk 13.

(Vervolg op blz. 4)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 01.04.2020

Herziening van: 01.04.2020

Handelsnaam: GRAY RESIN THERMOPLASTIC

(Vervolg van blz. 3)

RUBRIEK 7: Hantering en opslag

- **7.1 Voorzorgsmaatregelen voor het veilig hanteren van de stof of het mengsel**
 Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.
 Tanks voorzichtig openen en behandelen.
 Aërosolvorming vermijden.
- **Informatie m.b.t. brand- en ontploffingsgevaar:** Ademhalingstoestellen gereedhouden.
- **7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**
- **Opslag:**
- **Eisen ten opzichte van opslagruimte en tanks:** Geen bijzondere eisen.
- **Informatie m.b.t. gezamenlijke opslag:** Niet noodzakelijk.
- **Verdere inlichtingen over eisen m.b.t. de opslag:** Tanks ondoordringbaar gesloten houden.
- **7.3 Specifiek eindgebruik** Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming

- **Aanvullende gegevens m.b.t. de inrichting van technische installaties:** Geen aanvullende gegevens. Zie 7.
- **8.1 Controleparameters**
- **Bestanddelen met grenswaarden die m.b.t. de werkruimte in acht genomen moeten worden:**
 Het produkt bevat geen relevante hoeveelheden van stoffen, die met betrekking tot de werkplaatsen, qua grenswaarden gecontroleerd moeten worden.
- **Aanvullende gegevens:** Als basis dienden lijsten die bij opstelling geldig waren.
- **8.2 Maatregelen ter beheersing van blootstelling**
- **Persoonlijke beschermingsvoorzieningen:**
- **Algemene beschermings- en gezondheidsmaatregelen:**
 Verwijderd houden van eet- en drinkwaren.
 Verontreinigde kleding onmiddellijk uittrekken.
 Vóór de pauze en aan het einde van werktijd handen wassen.
 Beschermende kleding afzonderlijk bewaren.
 Aanraking met de ogen en de huid vermijden.
- **Ademhalingsbescherming:**
 Bij korte of geringe belasting ademfiltertoestel; bij intensieve resp. langdurige expositie een van de omringende lucht onafhankelijk ademhalingstoestel gebruiken.
- **Handbescherming:**



Veiligheidshandschoenen

- Het handschoenmateriaal moet ondoorlatend en bestand zijn tegen het product / de stof / de bereiding.
 Op grond van falende testen kan geen aanbeveling voor handschoenmateriaal voor het product / de bereiding / het chemicaliënmengsel afgegeven worden.
 Kies handschoenmateriaal rekening houdend met de penetratietijden, de permeatiegraden en de degradatie.
- **Handschoenmateriaal**
 De keuze van een geschikte handschoen is niet alleen afhankelijk van het materiaal, maar ook van andere kwaliteitskenmerken en verschilt van fabrikant tot fabrikant. Aangezien het product uit meerdere stoffen is samengesteld, is de duurzaamheid van de handschoenmaterialen niet vooraf berekenbaar en moet derhalve vóór het gebruik worden getest.
 - **Doordringingstijd van het handschoenmateriaal**
 De precieze penetratietijd kunt u te weten komen bij de handschoenfabrikant; houd er rekening mee.

(Vervolg op blz. 5)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 01.04.2020

Herziening van: 01.04.2020

Handelsnaam: GRAY RESIN THERMOPLASTIC

(Vervolg van blz. 4)

· Oogbescherming:

Nauw aansluitende veiligheidsbril

RUBRIEK 9: Fysische en chemische eigenschappen

· 9.1 Informatie over fysische en chemische basiseigenschappen**· Algemene gegevens****· Voorkomen:**

Vorm:	Vaste stof
Kleur:	Grijs
Geur:	Mild
Geurdrempelwaarde:	Niet bepaald.

· pH-waarde: Niet bepaald.**· Toestandsverandering**

Smelt-/vriespunt:	Niet bepaald.
Beginkookpunt en kooktraject:	3.000 °C

· Vlampunt: Niet bruikbaar.**· Ontvlambaarheid (vast, gas):** Niet bruikbaar.**· Ontstekingstemperatuur:** 304 °C**· Ontledingstemperatuur:** Niet bepaald.**· Zelfontbrandingstemperatuur:** Het produkt ontbrandt niet uit zichzelf.**· Ontploffingseigenschappen:** Het produkt is niet ontploffingsgevaarlijk.**· Ontploffingsgrenzen:**

Onderste:	Niet bepaald.
Bovenste:	Niet bepaald.

· Dampspanning: Niet bepaald.**Dichtheid:** Niet bepaald.**· Relatieve dichtheid** Niet bepaald.**· Dampdichtheid** Niet bepaald.**· Verdampingssnelheid** Niet bepaald.**· Oplosbaarheid in/mengbaarheid met****Water:** Niet resp. gering mengbaar.**· Verdelingscoëfficiënt: n-octanol/water:** Niet bepaald.**· Viscositeit****Dynamisch:** Niet bepaald.**Kinematisch:** Niet bepaald.**· Oplosmiddelgehalte:****VOC (EG)** 0,00 %**Gehalte aan vaste bestanddelen:** 76,0 %

(Vervolg op blz. 6)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 01.04.2020

Herziening van: 01.04.2020

Handelsnaam: GRAY RESIN THERMOPLASTIC

(Vervolg van blz. 5)

- **9.2 Overige informatie** *Geen verdere relevante informatie verkrijgbaar.*

RUBRIEK 10: Stabiliteit en reactiviteit

- **10.1 Reactiviteit** *Geen verdere relevante informatie verkrijgbaar.*
- **10.2 Chemische stabiliteit**
- **Thermische afbraak / te vermijden omstandigheden:** *Geen afbraak bij gebruik volgens voorschrift.*
- **10.3 Mogelijke gevaarlijke reacties** *Geen gevaarlijke reacties bekend.*
- **10.4 Te vermijden omstandigheden** *Geen verdere relevante informatie verkrijgbaar.*
- **10.5 Chemisch op elkaar inwerkende materialen:** *Geen verdere relevante informatie verkrijgbaar.*
- **10.6 Gevaarlijke ontledingsproducten:** *Geen gevaarlijke ontbindingsproducten bekend.*

RUBRIEK 11: Toxicologische informatie

- **11.1 Informatie over toxicologische effecten**
- **Acute toxiciteit**
*Giftig bij inslikken en bij contact met de huid.
Schadelijk bij inademing.*
- **Primaire aandoening:**
- **Huidcorrosie/-irritatie**
Veroorzaakt huidirritatie.
- **Ernstig oogletsel/oogirritatie**
Veroorzaakt ernstige oogirritatie.
- **Sensibilisatie van de luchtwegen/de huid**
Kan een allergische huidreactie veroorzaken.
- **CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)**
- **Mutageniteit in geslachtscellen** *Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.*
- **Kankerverwekkendheid** *Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.*
- **Giftigheid voor de voortplanting** *Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.*
- **STOT bij eenmalige blootstelling**
Kan irritatie van de luchtwegen veroorzaken.
- **STOT bij herhaalde blootstelling**
Kan schade aan organen veroorzaken bij langdurige of herhaalde blootstelling.
- **Gevaar bij inademing** *Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.*

RUBRIEK 12: Ecologische informatie

- **12.1 Toxiciteit**
- **Aquatische toxiciteit:** *Geen verdere relevante informatie verkrijgbaar.*
- **12.2 Persistentie en afbreekbaarheid** *Geen verdere relevante informatie verkrijgbaar.*
- **12.3 Bioaccumulatie** *Geen verdere relevante informatie verkrijgbaar.*
- **12.4 Mobiliteit in de bodem** *Geen verdere relevante informatie verkrijgbaar.*
- **Verdere ecologische informatie:**
- **Algemene informatie:**
*Waterbezwaarlijkheid (NL): A(4) Weinig schadelijk voor in water levende organismen kan in het aquatische milieu op lange termijn schadelijke effecten veroorzaken
Gevaar voor water klasse 1 (D) (Zelfclassificatie): gevaar voor water klein
Niet onverdund of in grote hoeveelheden lozen in grondwater, in oppervlaktewater of in de riolering.*
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** *Niet bruikbaar.*

(Vervolg op blz. 7)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 01.04.2020

Herziening van: 01.04.2020

Handelsnaam: GRAY RESIN THERMOPLASTIC

(Vervolg van blz. 6)

- **zPzB:** Niet bruikbaar.
- **12.6 Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 13: Instructies voor verwijdering

- **13.1 Afvalverwerkingsmethoden**
- **Aanbeveling:** Mag niet tesamen met huisvuil gestort worden of in de riolering terechtkomen.
- **Niet gereinigde verpakkingen:**
- **Aanbeveling:** Afvalverwijdering volgens overheidsbepalingen.

RUBRIEK 14: Informatie met betrekking tot het vervoer

- | | |
|--|--|
| <ul style="list-style-type: none"> · 14.1 VN-nummer · ADR, IMDG, IATA | UN2810 |
| <ul style="list-style-type: none"> · 14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN · ADR · IMDG, IATA | 2810 GIFTIGE ORGANISCHE VLOEISTOF, N.E.G.
(Poly(Methyl Methacrylate), ijzer)
TOXIC LIQUID, ORGANIC, N.O.S. (Poly(Methyl Methacrylate), iron) |
| <ul style="list-style-type: none"> · 14.3 Transportgevarenklasse(n) · ADR, IMDG, IATA | <div style="text-align: center;"> </div> |
| <ul style="list-style-type: none"> · klasse · Etiket | 6.1 Giftige stoffen
6.1 |
| <ul style="list-style-type: none"> · 14.4 Verpakkingsgroep: · ADR, IMDG, IATA | II |
| <ul style="list-style-type: none"> · 14.5 Milieugevaren: | Niet bruikbaar. |
| <ul style="list-style-type: none"> · 14.6 Bijzondere voorzorgen voor de gebruiker · Gevaarsidentificatienummer (Kemler-getal): · EMS-nummer: · Stowage Category · Stowage Code | Waarschuwing: Giftige stoffen
60
F-A,S-A
B
SW2 Clear of living quarters. |
| <ul style="list-style-type: none"> · 14.7 Vervoer in bulk overeenkomstig bijlage II bij Marpol en de IBC-code | Niet bruikbaar. |
| <ul style="list-style-type: none"> · Transport/verdere gegevens: | |
| <ul style="list-style-type: none"> · ADR · Beperkte hoeveelheden (LQ) · Uitgezonderde hoeveelheden (EQ) · Vervoerscategorie · Tunnelbeperkingscode | 100 ml
Code: E4
Grootste netto hoeveelheid per binnenverpakking: 1 ml
Grootste netto hoeveelheid per buitenverpakking: 500 ml
2
D/E |

(Vervolg op blz. 8)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 01.04.2020

Herziening van: 01.04.2020

Handelsnaam: GRAY RESIN THERMOPLASTIC

(Vervolg van blz. 7)

· IMDG	
· Limited quantities (LQ)	100 ml
· Excepted quantities (EQ)	Code: E4
	Maximum net quantity per inner packaging: 1 ml
	Maximum net quantity per outer packaging: 500 ml
· VN "Model Regulation":	UN 2810 GIFTIGE ORGANISCHE VLOEISTOF, N.E.G. (POLY(METHYL METHACRYLATE), IJZER), 6.1, II

RUBRIEK 15: Regelgeving

· **15.1 Specifieke veiligheids-, gezondheids- en milieureglementen en -wetgeving voor de stof of het mengsel**

· **SZW-lijst van kankerverwekkende stoffen**

geen der bestanddelen staat op de lijst.

· **SZW-lijst van mutagene stoffen**

geen der bestanddelen staat op de lijst.

· **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Vruchtbaarheid**

geen der bestanddelen staat op de lijst.

· **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling**

geen der bestanddelen staat op de lijst.

· **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding**

geen der bestanddelen staat op de lijst.

· **Lijst Zeer Zorgwekkende Stoffen (ZZS)**

geen der bestanddelen staat op de lijst.

· **Lijst van Potentieel Zeer Zorgwekkende Stoffen**

geen der bestanddelen staat op de lijst.

· **Richtlijn 2012/18/EU**

· **Gevaarlijke stoffen die met naam genoemd worden - BIJLAGE I** geen der bestanddelen staat op de lijst.

· **Verordening (EG) nr. 1907/2006 BIJLAGE XVII** Beperkingsvoorwaarden: 3

· **Nationale voorschriften:**

· **Gevaarklasse v. water:**

Waterbezwaarlijkheid (NL): A(4) Weinig schadelijk voor in water levende organismen kan in het aquatische milieu op lange termijn schadelijke effecten veroorzaken

· **15.2 Chemischeveiligheidsbeoordeling:** Een chemische veiligheidsbeoordeling is niet uitgevoerd.

RUBRIEK 16: Overige informatie

Deze gegevens zijn gebaseerd op de huidige stand van onze kennis. Zij beschrijven echter geen garantie van producteigenschappen en vestigen geen contractuele rechtsbetrekking.

· **Relevante zinnen**

H241 Brand- of ontploffingsgevaar bij verwarming.

H300 Dodelijk bij inslikken.

H302 Schadelijk bij inslikken.

H311 Giftig bij contact met de huid.

H312 Schadelijk bij contact met de huid.

H315 Veroorzaakt huidirritatie.

(Vervolg op blz. 9)

Veiligheidsinformatieblad
volgens 1907/2006/EG, Artikel 31

datum van de druk: 01.04.2020

Herziening van: 01.04.2020

Handelsnaam: GRAY RESIN THERMOPLASTIC

(Vervolg van blz. 8)

H317 Kan een allergische huidreactie veroorzaken.

H319 Veroorzaakt ernstige oogirritatie.

H332 Schadelijk bij inademing.

H335 Kan irritatie van de luchtwegen veroorzaken.

H373 Kan schade aan organen veroorzaken bij langdurige of herhaalde blootstelling.

· Afkortingen en acroniemen:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Org. Perox. B: Organische peroxiden – Type B

Acute Tox. 2: Acute toxiciteit - oraal – Categorie 2

Acute Tox. 4: Acute toxiciteit - oraal – Categorie 4

Acute Tox. 3: Acute toxiciteit - dermaal – Categorie 3

Skin Irrit. 2: Huidcorrosie/-irritatie – Categorie 2

Eye Irrit. 2: Ernstig oogletsel/oogirritatie – Categorie 2

Skin Sens. 1: Sensibilisatie van de huid – Categorie 1

STOT SE 3: Specifieke doelorgaan toxiciteit bij eenmalige blootstelling – Categorie 3

STOT RE 2: Specifieke doelorgaan toxiciteit bij herhaalde blootstelling – Categorie 2

NL

Käyttöturvallisuustiedote

1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 01.04.2020

Tarkistus: 01.04.2020

KOHTA 1: Aineen tai seoksen ja yhtiön tai yrityksen tunnistetiedot

- **1.1 Tuotetunniste**
- **Kauppanimike:** GRAY RESIN THERMOPLASTIC
- **Artikkelinumero:** 1210
- **1.2 Aineen tai seoksen merkitykselliset tunnistetut käytöt ja käytöt, joita ei suositella**
Merkittäviä lisätietoja ei ole saatavilla.
- **Aineen / valmisteen käyttö** Laboratoriokemikaalit
- **1.3 Käyttöturvallisuustiedotteen toimittajan tiedot**
- **Valmistaja/toimittaja:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Tietoja antaa:** Product safety department
- **1.4 Häätöpuhelinnumero:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

KOHTA 2: Vaaran yksilöinti

- **2.1 Aineen tai seoksen luokitus**
- **Luokitus asetuksen (EY) N:o 1272/2008 mukaisesti**



GHS06 pääkallo ja ristikkäiset luut

Acute Tox. 3 H301 Myrkyllistä nieltynä.

Acute Tox. 3 H311 Myrkyllistä joutuessaan iholle.



GHS08 terveysvaara

STOT RE 2 H373 Saattaa vahingoittaa elimiä pitkäaikaisessa tai toistuvassa altistumisessa.



GHS07

Acute Tox. 4 H332 Haitallista hengitettynä.

Skin Irrit. 2 H315 Ärsyttää ihoa.

Eye Irrit. 2 H319 Ärsyttää voimakkaasti silmiä.

Skin Sens. 1 H317 Voi aiheuttaa allergisen ihoreaktion.

STOT SE 3 H335 Saattaa aiheuttaa hengitysteiden ärsytystä.

- **2.2 Merkinnät**
- **Merkinnät asetuksen (EY) N:o 1272/2008 mukaisesti** Tuote on luokiteltu ja merkitty CLP-asetuksen mukaan.

(jatkuu sivulla 2)

Käyttöturvallisuustiedote

1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 01.04.2020

Tarkistus: 01.04.2020

Kauppanimike: GRAY RESIN THERMOPLASTIC

(jatkuu sivulla 1)

· Varoitusmerkit


GHS06 GHS08

· Huomiosana Vaara
· Vaaran määrävät komponentit etiketeissä:

iron

Poly(Methyl Methacrylate)

Graphite

dibentsoyyliperoksidi

· Vaaralausekkeet

H301+H311 Myrkyllistä nieltynä tai joutuessaan iholle.

H332 Haitallista hengitettynä.

H315 Ärsyttää ihoa.

H319 Ärsyttää voimakkaasti silmiä.

H317 Voi aiheuttaa allergisen ihoreaktion.

H335 Saattaa aiheuttaa hengitysteiden ärsytystä.

H373 Saattaa vahingoittaa elimiä pitkäaikaisessa tai toistuvassa altistumisessa.

· Turvalausekkeet

P301+P310 JOS KEMIKAALIA ON NIELTY: Ota välittömästi yhteys MYRKYTYSTIETOKESKUKSEEN/lääkäriin.

P321 Erytishoitoa tarvitaan (katso pakkauksen merkinnöissä).

P330 Huuhdo suu.

P305+P351+P338 JOS KEMIKAALIA JOUTUU SILMIIN: Huuhdo huolellisesti vedellä usean minuutin ajan. Poista mahdolliset piilolinssit, jos sen voi tehdä helposti. Jatka huuhtomista.

P361+P364 Riisu saastunut vaatetus välittömästi ja pese ennen uudelleenkäyttöä.

P405 Varastoi lukitussa tilassa.

P501 Hävitä säiliö(t) noudattaen paikallisia/alueellisia/kansallisia/kansainvälisiä määräyksiä.

· 2.3 Muut vaarat
· PBT- ja vPvB-arvioinnin tulokset
· PBT: Ei voida käyttää.

· vPvB: Ei voida käyttää.

KOHTA 3: Koostumus ja tiedot aineosista

· 3.2 Kemialliset ominaisuudet: Seokset
· Selostus: Seuraavista aineista koostuva seos, jossa vaarattomia lisäaineita.

· Sisältää vaarallisia aineita:

CAS: 7439-89-6 EINECS: 231-096-4	iron Acute Tox. 2, H300; STOT RE 2, H373; Skin Irrit. 2, H315	>25-≤50%
CAS: 9011-14-7	Poly(Methyl Methacrylate) Acute Tox. 3, H311; Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	>25-≤50%
CAS: 7782-42-5 EINECS: 231-955-3	Graphite Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	>10-≤25%
CAS: 94-36-0 EINECS: 202-327-6	dibentsoyyliperoksidi Org. Perox. B, H241; Eye Irrit. 2, H319; Skin Sens. 1, H317	≤,5%

(jatkuu sivulla 3)

Käyttöturvallisuustiedote

1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 01.04.2020

Tarkistus: 01.04.2020

Kauppanimike: GRAY RESIN THERMOPLASTIC

(jatkuu sivulla 2)

· **Lisätietoja:** Annettujen turvaohjeiden sanamuoto kappaleesta 16.

KOHTA 4: Ensiaputoimenpiteet

· 4.1 Ensiaputoimenpiteiden kuvaus

· Yleisohjeet:

Aineen saastuttamat vaatekappaleet on riisuttava välittömästi.

Myrkytysoireet voivat ilmaantua vasta useiden tuntien kuluttua. Tästä syystä henkilöt on pidettävä lääkärin tarkkailun alaisena ainakin 48 tuntia onnettomuuden jälkeen.

Hengityssuojain saadaan poistaa vasta kun saastuneet vaatteet on riisuttu.

Annettava tekehengitystä hengityksen ollessa epätasainen tai pysähtynyt.

· Hengitettynä:

Huolehdittava raittiin ilman saannista tai annettava happea; pyydettyä lääkärin apua.

Tajuton pidettävä ja kuljetettava kyljellään.

· Ihokosketuksessa: Pestävä heti vedellä ja saippualla ja huuhdottava hyvin.

· Aineen päästyä silmiin:

Silmiä huuhdotaan luomet auki juoksevan veden alla useita minutteja. Oireiden kestäessä käännetään lääkärin puoleen.

· Nieltyä: Ei pakoteta oksentamaan, saatettava heti lääkärin hoitoon.

· 4.2 Tärkeimmät oireet ja vaikutukset, sekä välittömät että viivästyneet Merkittäviä lisätietoja ei ole saatavilla.

· 4.3 Mahdollisesti tarvittavaa välitöntä lääketieteellistä apua ja erityishoitoa koskevat ohjeet

Merkittäviä lisätietoja ei ole saatavilla.

KOHTA 5: Palontorjuntatoimenpiteet

· 5.1 Sammutusaineet

· Sopivat sammutusaineet: Palontorjuntatoimenpiteet ympäristöä vastaavasti.

· 5.2 Aineesta tai seoksesta johtuvat erityiset vaarat Merkittäviä lisätietoja ei ole saatavilla.

· 5.3 Palontorjuntaa koskevat ohjeet

· Erityinen suojavarustus: Käytettävä hengityssuojainta.

KOHTA 6: Toimenpiteet onnettomuuspäästöissä

· 6.1 Varotoimenpiteet, henkilönsuojaimet ja menettely hätätilanteessa Ei tarvita.

· 6.2 Ympäristöön kohdistuvat varotoimet: Estettävä pääsy viemäreihin/pintavesiin/pohjaveteen.

· 6.3 Suojarakenteita ja puhdistusta koskevat menetelmät ja -välineet:

Imettävä nestettä sitovalla aineella (hiekkä, piimaa, hapon sidosaaine, yleisidosaine, sahajauho).

Saastunut aine on jätteenä hävitettävä kohdan 13 mukaisesti.

Huolehdittava riittävästä tuuletuksesta.

· 6.4 Viittäukset muihin kohtiin

Turvallista käsittelyä koskevia ohjeita kappaleessa 7.

Henkilökohtaista suojavarustusta koskevia ohjeita kappaleessa 8.

Aineen hävitystä koskevia ohjeita kappaleessa 13.

KOHTA 7: Käsittely ja varastointi

· 7.1 Turvallisen käsittelyn edellyttämät toimenpiteet

Huolehdittava hyvästä tuuletuksesta/imusta työpaikalla.

Säiliöt avattava ja käsiteltävä varovasti.

Vältettävä aerosolin muodostusta.

(jatkuu sivulla 4)

Käyttöturvallisuustiedote

1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 01.04.2020

Tarkistus: 01.04.2020

Kauppanimike: GRAY RESIN THERMOPLASTIC

(jatkuu sivulla 3)

- **Palo- ja räjähdysuojaohjeet:** Pidettävä hengityssuojain käyttövalmiina.
- **7.2 Turvallisen varastoinnin edellyttämät olosuhteet, mukaan luettuina yhteensopimattomuudet**
- **Varastointi:**
- **Varastotiloille ja säiliöille asetettavat vaatimukset:** Ei erikoisvaatimuksia.
- **Yhteisvarastointiohjeet:** Ei tarvita.
- **Lisätietoja varastointiehtoihin:** Astiat on pidettävä tiiviisti suljettuina.
- **7.3 Erityinen loppukäyttö** Merkittäviä lisätietoja ei ole saatavilla.

KOHTA 8: Altistumisen ehkäiseminen ja henkilösuojaimet

- **Lisäohjeita teknisten laitteiden varustukseen:** Ei muita tietoja, ks. kohta 7.
- **8.1 Valvontaa koskevat muuttajat**
- **Aineosat työpaikkakohtaisin valvottavin raja-arvoin:**
Tuote ei sisällä merkityksellisiä määriä aineita työpaikkakohtaisilla valvottavilla raja-arvoilla.
- **Lisäohjeet:** Tiedot perustuvat valmistushetkellä voimassaoleviin luetteloihin.
- **8.2 Altistumisen ehkäiseminen**
- **Henkilökohtainen suojavarustus:**
- **Yleiset suoja- ja hygieniatoimenpiteet:**
Pidettävä loitolla elintarvikkeista, juomista ja rehuista.
Likaantuneet, aineen saastuttamat vaatekappaleet on riisuttava välittömästi.
Kädet on pestävä ennen taukoja ja työn päätyttyä.
Suojavaatetus on säilytettävä erikseen.
Vältettävä ihokosketusta ja kosketusta silmiin.
- **Hengityssuoja:**
Lyhytaikaisessa tai vähäisessä altistuksessa hengityssuojasuodin; intensiivisessä tai pitempiaikaisessa rasituksessa ulkoilmasta riippumaton hengityssuojain.
- **Käsisuojus:**



Suojakäsineet

- Käsin materiaalin tulee olla tuotetta/ainetta/valmistetta kestävä ja läpäisemätöntä. Puuttuvien testien vuoksi suositusta soveltuvasta suojakäsin materiaalista tuotteelle/ valmistellelle / kemikaalisekoitteelle ei voida antaa.
- Suojakäsin materiaalin valinnassa on otettava huomioon läpäisyajat, läpäisevyyskerroin ja kuluminen.
- **Käsinmateriaali**
Soveltuvan käsinetyypin valikoima ei riipu yksinomaan materiaalista vaan myös muista laatuominaisuuksista ja vaihtelee eri valmistajilla. Koska tuote on valmiste, joka koostuu eri aineista, ei suojakäsin materiaalin kestävyys ole ennalta arvioitavissa vaan pitää tarkistaa ennen käyttöä.
 - **Käsinmateriaalin läpäisy aika**
Tarkka läpäisy aika on selvitettävä suojakäsinevalmistajalta ja sitä on noudatettava.
 - **Silmäsuojus:**



Tiiviit suojalasit

FI

(jatkuu sivulla 5)

Käyttöturvallisuustiedote

1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 01.04.2020

Tarkistus: 01.04.2020

Kauppanimike: GRAY RESIN THERMOPLASTIC

(jatkuu sivulla 4)

KOHTA 9: Fysikaaliset ja kemialliset ominaisuudet

· 9.1 Fysikaalisia ja kemiallisia perusominaisuuksia koskevat tiedot	
· Yleiset ohjeet	
· Olomuoto:	
Muoto:	Kiinteä materiaali
Väri:	Harmaa
· Haju:	Mieto
· Hajukynnys:	Ei määrätty.
· pH-arvo:	Ei määrätty.
· Tilanmuutos	
Sulamis- tai jäätymispiste:	Ei määrätty.
Kiehumispiste ja kiehumisalue:	3.000 °C
· Leimahduspiste:	Ei voida käyttää.
· Syttyvyys (kiinteät aineet, kaasut):	Ei voida käyttää.
· Syttymislämpötila:	304 °C
· Hajoamislämpötila:	Ei määrätty.
· Itsesyttymislämpötila:	Tuote ei ole itsestään syttyvä.
· Räjähävyys:	Tuote ei ole räjähdysvaarallinen.
· Räjähdyksrajat:	
Alempi:	Ei määrätty.
Ylempi:	Ei määrätty.
· Höyrypaine:	Ei määrätty.
· Tiheys:	Ei määrätty.
· Suhteellinen tiheys	Ei määrätty.
· Höyryntiheys:	Ei määrätty.
· Haihtumisnopeus:	Ei määrätty.
· Liukenevuus/sekoittuvuus veteen:	Ei sekoittuva tai vain osittain sekoittuva.
· Jakautumiskerroin: n-oktanoli/vesi:	Ei määrätty.
· Viskositeetti:	
Dynaaminen:	Ei määrätty.
Kinemaattinen:	Ei määrätty.
· Liuotainepitoisuus: VOC (EY)	0,00 %
Kiinainepitoisuus:	76,0 %
· 9.2 Muut tiedot	Merkittäviä lisätietoja ei ole saatavilla.

KOHTA 10: Stabiilisuus ja reaktiivisuus

- 10.1 Reaktiivisuus Merkittäviä lisätietoja ei ole saatavilla.
- 10.2 Kemiallinen stabiilisuus
- Terminen hajoavuus / vältettävät olosuhteet: Ei hajaantumista määräystenmukaisessa käytössä.
- 10.3 Vaarallisten reaktioiden mahdollisuus Ei tiedossa vaarallisia reaktioita.
- 10.4 Vältettävät olosuhteet Merkittäviä lisätietoja ei ole saatavilla.

(jatkuu sivulla 6)

Käyttöturvallisuustiedote

1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 01.04.2020

Tarkistus: 01.04.2020

Kauppanimike: GRAY RESIN THERMOPLASTIC

(jatkuu sivulla 5)

- **10.5 Yhteensopimattomat materiaalit:** Merkittäviä lisätietoja ei ole saatavilla.
- **10.6 Vaaralliset hajoamistuotteet:** Tiedossa ei ole vaarallisia hajoamistuotteita.

KOHTA 11: Myrkyllisyyteen liittyvät tiedot

- **11.1 Tiedot myrkyllisistä vaikutuksista**
- **Välitön myrkyllisyys**
Myrkyllistä nieltynä tai joutuessaan iholle.
Haitallista hengitettynä.
- **Ensisijainen ärsyttävä vaikutus:**
- **Ihosyövyttävyyksi/ihoärsytys**
Ärsyttää ihoa.
- **Vakava silmävaurio/silmä-ärsytys**
Ärsyttää voimakkaasti silmiä.
- **Hengitysteiden tai ihon herkistyminen**
Voi aiheuttaa allergisen ihoreaktion.
- **CMR-vaikutukset eli syöpää aiheuttavat, perimää vaurioittavat ja lisääntymiselle vaaralliset vaikutukset**
- **Sukusolujen perimää vaurioittavat vaikutukset** Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.
- **Syöpää aiheuttavat vaikutukset** Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.
- **Lisääntymiselle vaaralliset vaikutukset** Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.
- **Elinikäinen myrkyllisyys – kerta-altistuminen**
Saattaa aiheuttaa hengitysteiden ärsytystä.
- **Elinikäinen myrkyllisyys – toistuva altistuminen**
Saattaa vahingoittaa elimiä pitkäaikaisessa tai toistuvassa altistumisessa.
- **Aspiraatiovaara** Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.

KOHTA 12: Tiedot vaarallisuudesta ympäristölle

- **12.1 Myrkyllisyys**
- **Vesimyrkyllisyys:** Merkittäviä lisätietoja ei ole saatavilla.
- **12.2 Pysyvyys ja hajoavuus** Merkittäviä lisätietoja ei ole saatavilla.
- **12.3 Biokertyvyys** Merkittäviä lisätietoja ei ole saatavilla.
- **12.4 Liikkuvuus maaperässä** Merkittäviä lisätietoja ei ole saatavilla.
- **Ekologisia lisätietoja:**
- **Yleisohjeita:**
Vesistövaarallisuusluokka 1 (Oma luokitus): lievästi vesistöä vaarantava
Estetään aineen pääsy ohentamattomana tai suurina määrinä pohjaveteen, vesistöihin, viemäristöön.
- **12.5 PBT- ja vPvB-arvioinnin tulokset**
- **PBT:** Ei voida käyttää.
- **vPvB:** Ei voida käyttää.
- **12.6 Muut haitalliset vaikutukset** Merkittäviä lisätietoja ei ole saatavilla.

KOHTA 13: Jätteiden käsittelyyn liittyvät näkökohdat

- **13.1 Jätteiden käsittelymenetelmät**
- **Suositus:** Ei voida hävittää yhdessä talousjätteiden kanssa. Ei saa päästää viemäristöön.
- **Puhdistamattomat pakkaukset:**
- **Suositus:** Hävitettävä virallisten määräysten mukaisesti.

FI

(jatkuu sivulla 7)

Käyttöturvallisuustiedote
1907/2006/EY, 31 artikla mukainen


Painatuspäivämäärä 01.04.2020

Tarkistus: 01.04.2020

Kauppanimike: GRAY RESIN THERMOPLASTIC

(jatkuu sivulla 6)

KOHTA 14: Kuljetustiedot

· 14.1 YK-numero · ADR, IMDG, IATA	UN2810
· 14.2 Kuljetuksessa käytettävä virallinen nimi · ADR · IMDG, IATA	2810 MYRKYLLINEN NESTE, ORGAANINEN, N.O.S. (Poly(Methyl Methacrylate), iron) TOXIC LIQUID, ORGANIC, N.O.S. (Poly(Methyl Methacrylate), iron)
· 14.3 Kuljetuksen vaaraluokka · ADR, IMDG, IATA	
	
· luokka · Lipuke	6.1 Myrkylliset aineet 6.1
· 14.4 Pakkausryhmä · ADR, IMDG, IATA	II
· 14.5 Ympäristövaarat:	Ei voida käyttää.
· 14.6 Erityiset varotoimet käyttäjälle · Vaaran tunnus-nro (Kemler-luku): · EMS-numero: · Stowage Category · Stowage Code	Varoitus: Myrkylliset aineet 60 F-A,S-A B SW2 Clear of living quarters.
· 14.7 Kuljetus irtolastina Marpol-sopimuksen II liitteen ja IBC-säännösten mukaisesti	Ei voida käyttää.
· Kuljetus/lisätietoja:	
· ADR · Rajoitetut määrät (LQ) · Poikkeusmäärät (EQ)	100 ml Koodi: E4 Enimmäisnettomäärä sisäpakkausta kohti: 1 ml Enimmäisnettomäärä ulkopakkausta kohti: 500 ml
· Kuljetuskategoria · Tunnelirajoituskoodi:	2 D/E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	100 ml Code: E4 Maximum net quantity per inner packaging: 1 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 2810 MYRKYLLINEN NESTE, ORGAANINEN, N.O.S. (POLY(METHYL METHACRYLATE), IRON), 6.1, II

FI

(jatkuu sivulla 8)

Käyttöturvallisuustiedote

1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 01.04.2020

Tarkistus: 01.04.2020

Kauppanimike: GRAY RESIN THERMOPLASTIC

(jatkuu sivulla 7)

KOHTA 15: Lainsäädäntöä koskevat tiedot

- **15.1 Nimenomaisesti ainetta tai seosta koskevat turvallisuus-, terveys- ja ympäristösäännökset tai -lainsäädäntö**
- **Direktiivi 2012/18/EU**
- **Nimetyt vaaralliset aineet - LIITE I** sisältäviä aineita ei ole lueteltu
- **NEUVOSTON ASETUS (EY) N:o 1907/2006 LIITE XVII** Rajoitusehdot: 3
- **15.2 Kemikaaliturvallisuusarviointi:** Kemikaaliturvallisuusarviointia ei ole tehty.

KOHTA 16: Muut tiedot

Annetut tiedot perustuvat tämänhetkisiin tietoihimme. Ne eivät kuitenkaan anna takuuta tuotteen ominaisuuksista eivätkä aikaansaa sopimuksellista oikeussuhdetta.

- **Asiaankuuluvat lausekkeet**

H241 Räjähdyks- tai palovaarallinen kuumennettaessa.

H300 Tappavaa nieltynä.

H302 Haitallista nieltynä.

H311 Myrkyllistä joutuessaan iholle.

H312 Haitallista joutuessaan iholle.

H315 Ärsyttää ihoa.

H317 Voi aiheuttaa allergisen ihoreaktion.

H319 Ärsyttää voimakkaasti silmiä.

H332 Haitallista hengitettynä.

H335 Saattaa aiheuttaa hengitysteiden ärsytystä.

H373 Saattaa vahingoittaa elimiä pitkäaikaisessa tai toistuvassa altistumisessa.

- **Lyhenteet ja lyhytnimet:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Org. Perox. B: Orgaaniset peroksidit – Tyyppi B

Acute Tox. 2: Välitön myrkyllisyys - suun kautta – Katgoria 2

Acute Tox. 4: Välitön myrkyllisyys - suun kautta – Katgoria 4

Acute Tox. 3: Välitön myrkyllisyys - ihon kautta – Katgoria 3

Skin Irrit. 2: Ihosyövyttävyyssihoärsytys – Katgoria 2

Eye Irrit. 2: Vakava silmävaurio/silmä-ärsytys – Katgoria 2

Skin Sens. 1: Ihoa herkistävä – Katgoria 1

STOT SE 3: Elinkohtainen myrkyllisyys (kerta-altistuminen) – Katgoria 3

STOT RE 2: Elinkohtainen myrkyllisyys (toistuva altistuminen) – Katgoria 2

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 01.04.2020

Révision: 01.04.2020

RUBRIQUE 1: Identification de la substance/du mélange et de la société/l'entreprise

- **1.1 Identificateur de produit**
- **Nom du produit:** GRAY RESIN THERMOPLASTIC
- **Code du produit:** 1210
- **1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées**
Pas d'autres informations importantes disponibles.
- **Emploi de la substance / de la préparation** Produits chimiques pour laboratoires
- **1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité**
- **Producteur/fournisseur:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Service chargé des renseignements:** Product safety department
- **1.4 Numéro d'appel d'urgence:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

RUBRIQUE 2: Identification des dangers

- **2.1 Classification de la substance ou du mélange**
- **Classification selon le règlement (CE) n° 1272/2008**



GHS06 tête de mort sur deux tibias

Acute Tox. 3 H301 Toxique en cas d'ingestion.

Acute Tox. 3 H311 Toxique par contact cutané.



GHS08 danger pour la santé

STOT RE 2 H373 Risque présumé d'effets graves pour les organes à la suite d'expositions répétées ou d'une exposition prolongée.



GHS07

Acute Tox. 4 H332 Nocif par inhalation.

Skin Irrit. 2 H315 Provoque une irritation cutanée.

Eye Irrit. 2 H319 Provoque une sévère irritation des yeux.

Skin Sens. 1 H317 Peut provoquer une allergie cutanée.

STOT SE 3 H335 Peut irriter les voies respiratoires.

- **2.2 Éléments d'étiquetage**
- **Étiquetage selon le règlement (CE) n° 1272/2008** Le produit est classifié et étiqueté selon le règlement CLP.

(suite page 2)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 01.04.2020

Révision: 01.04.2020

Nom du produit: GRAY RESIN THERMOPLASTIC

(suite de la page 1)

· Pictogrammes de danger



GHS06 GHS08

· Mention d'avertissement Danger

· Composants dangereux déterminants pour l'étiquetage:

fer

Poly(Methyl Methacrylate)

graphite

peroxyde de dibenzoyle

· Mentions de danger

H301+H311 Toxique par ingestion ou par contact cutané.

H332 Nocif par inhalation.

H315 Provoque une irritation cutanée.

H319 Provoque une sévère irritation des yeux.

H317 Peut provoquer une allergie cutanée.

H335 Peut irriter les voies respiratoires.

H373 Risque présumé d'effets graves pour les organes à la suite d'expositions répétées ou d'une exposition prolongée.

· Conseils de prudence

P301+P310 EN CAS D'INGESTION: Appeler immédiatement un CENTRE ANTIPOISON/un médecin.

P321 Traitement spécifique (voir sur cette étiquette).

P330 Rincer la bouche.

P305+P351+P338 EN CAS DE CONTACT AVEC LES YEUX: Rincer avec précaution à l'eau pendant plusieurs minutes. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer.

P361+P364 Enlever immédiatement tous les vêtements contaminés et les laver avant réutilisation.

P405 Garder sous clef.

P501 Éliminer le contenu/récipient conformément à la réglementation locale/régionale/nationale/internationale.

· 2.3 Autres dangers

· Résultats des évaluations PBT et vPvB

· PBT: Non applicable.

· vPvB: Non applicable.

RUBRIQUE 3: Composition/informations sur les composants

· 3.2 Caractérisation chimique: Mélanges

· Description: Mélange des substances mentionnées à la suite avec des additifs non dangereux.

· Composants dangereux:

CAS: 7439-89-6 EINECS: 231-096-4	fer ☠ Acute Tox. 2, H300; ☠ STOT RE 2, H373; ☠ Skin Irrit. 2, H315	>25-≤50%
CAS: 9011-14-7	Poly(Methyl Methacrylate) ☠ Acute Tox. 3, H311; ☠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	>25-≤50%
CAS: 7782-42-5 EINECS: 231-955-3	graphite ☠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	>10-≤25%

(suite page 3)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 01.04.2020

Révision: 01.04.2020



Nom du produit: GRAY RESIN THERMOPLASTIC

CAS: 94-36-0

peroxyde de dibenzoyle

(suite de la page 2)

EINECS: 202-327-6


 Org. Perox. B, H241;  Eye Irrit. 2, H319; Skin Sens. 1, H317

≤2,5%

· **Indications complémentaires:** Pour le libellé des phrases de risque citées, se référer au chapitre 16.

RUBRIQUE 4: Premiers secours

· **4.1 Description des premiers secours**

· **Remarques générales:**

Enlever immédiatement les vêtements contaminés par le produit.

Les symptômes d'intoxication peuvent apparaître après de nombreuses heures seulement; une surveillance médicale est donc nécessaire au moins 48 heures après un accident.

Ne retirer la protection respiratoire qu'après avoir retiré les vêtements contaminés.

Respiration artificielle dans le cas d'une respiration irrégulière ou d'un arrêt respiratoire.

· **Après inhalation:**

Donner de l'air frais ou de l'oxygène; demander d'urgence une assistance médicale.

En cas d'inconscience, coucher et transporter la personne en position latérale stable.

· **Après contact avec la peau:** Laver immédiatement à l'eau et au savon et bien rincer.

· **Après contact avec les yeux:**

Rincer les yeux, pendant plusieurs minutes, sous l'eau courante en écartant bien les paupières. Si les troubles persistent, consulter un médecin.

· **Après ingestion:** Ne pas faire vomir, demander d'urgence une assistance médicale.

· **4.2 Principaux symptômes et effets, aigus et différés** Pas d'autres informations importantes disponibles.

· **4.3 Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires**

Pas d'autres informations importantes disponibles.

RUBRIQUE 5: Mesures de lutte contre l'incendie

· **5.1 Moyens d'extinction**

· **Moyens d'extinction:** Adapter les mesures d'extinction d'incendie à l'environnement.

· **5.2 Dangers particuliers résultant de la substance ou du mélange**

Pas d'autres informations importantes disponibles.

· **5.3 Conseils aux pompiers**

· **Équipement spécial de sécurité:** Porter un appareil de protection respiratoire.

RUBRIQUE 6: Mesures à prendre en cas de dispersion accidentelle

· **6.1 Précautions individuelles, équipement de protection et procédures d'urgence** Pas nécessaire.

· **6.2 Précautions pour la protection de l'environnement:**

Ne pas rejeter dans les canalisations, dans les eaux de surface et dans les nappes d'eau souterraines.

· **6.3 Méthodes et matériel de confinement et de nettoyage:**

Recueillir les liquides à l'aide d'un produit absorbant (sable, kieselguhr, neutralisant d'acide, liant universel, sciure).

Evacuer les matériaux contaminés en tant que déchets conformément au point 13.

Assurer une aération suffisante.

· **6.4 Référence à d'autres rubriques**

Afin d'obtenir des informations pour une manipulation sûre, consulter le chapitre 7.

Afin d'obtenir des informations sur les équipements de protection personnels, consulter le chapitre 8.

Afin d'obtenir des informations sur l'élimination, consulter le chapitre 13.

FR

(suite page 4)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 01.04.2020

Révision: 01.04.2020

Nom du produit: GRAY RESIN THERMOPLASTIC

(suite de la page 3)

RUBRIQUE 7: Manipulation et stockage

- **7.1 Précautions à prendre pour une manipulation sans danger**
Veiller à une bonne ventilation/aspiration du poste de travail.
Ouvrir et manipuler les récipients avec précaution.
Eviter la formation d'aérosols.
- **Préventions des incendies et des explosions:** Tenir des appareils de protection respiratoire prêts.
- **7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités**
- **Stockage:**
- **Exigences concernant les lieux et conteneurs de stockage:** Aucune exigence particulière.
- **Indications concernant le stockage commun:** Pas nécessaire.
- **Autres indications sur les conditions de stockage:** Tenir les emballages hermétiquement fermés.
- **7.3 Utilisation(s) finale(s) particulière(s)** Pas d'autres informations importantes disponibles.

RUBRIQUE 8: Contrôles de l'exposition/protection individuelle

- **Indications complémentaires pour l'agencement des installations techniques:**
Sans autre indication, voir point 7.
- **8.1 Paramètres de contrôle**
- **Composants présentant des valeurs-seuil à surveiller par poste de travail:**
Le produit ne contient pas en quantité significative des substances présentant des valeurs-seuil à surveiller par poste de travail.
- **Remarques supplémentaires:**
Le présent document s'appuie sur les listes en vigueur au moment de son élaboration.
- **8.2 Contrôles de l'exposition**
- **Equipement de protection individuel:**
- **Mesures générales de protection et d'hygiène:**
Tenir à l'écart des produits alimentaires, des boissons et de la nourriture pour animaux.
Retirer immédiatement les vêtements souillés ou humectés.
Se laver les mains avant les pauses et en fin de travail.
Conserver à part les vêtements de protection.
Eviter tout contact avec les yeux et avec la peau.
- **Protection respiratoire:**
En cas d'exposition faible ou de courte durée, utiliser un filtre respiratoire; en cas d'exposition intense ou durable, utiliser un appareil de respiration indépendant de l'air ambiant.
- **Protection des mains:**



Gants de protection

- **Le matériau des gants doit être imperméable et résistant au produit / à la substance / à la préparation.**
À cause du manque de tests, aucune recommandation pour un matériau de gants pour le produit / la préparation / le mélange de produits chimiques ne peut être donnée.
Choix du matériau des gants en fonction des temps de pénétration, du taux de perméabilité et de la dégradation.
- **Matériau des gants**
Le choix de gants appropriés dépend non seulement du matériau, mais aussi d'autres critères de qualité qui peuvent varier d'un fabricant à l'autre. Puisque le produit représente une préparation composée de plusieurs substances, la résistance des matériaux des gants ne peut pas être calculée à l'avance et doit, alors, être contrôlée avant l'utilisation.
- **Temps de pénétration du matériau des gants**
Le temps de pénétration exact est à déterminer par le fabricant des gants de protection et à respecter.

(suite page 5)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 01.04.2020

Révision: 01.04.2020

Nom du produit: GRAY RESIN THERMOPLASTIC

(suite de la page 4)

· Protection des yeux:



Lunettes de protection hermétiques

RUBRIQUE 9: Propriétés physiques et chimiques

· 9.1 Informations sur les propriétés physiques et chimiques essentielles

· Indications générales

· Aspect:

Forme:	Substance solide
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Couleur:	Gris
----------	------

· Odeur:	Douce
----------	-------

· Seuil olfactif:	Non déterminé.
-------------------	----------------

· valeur du pH:	Non déterminé.
-----------------	----------------

· Changement d'état

Point de fusion/point de congélation:	Non déterminé.
---------------------------------------	----------------

Point initial d'ébullition et intervalle d'ébullition:	3.000 °C
--	----------

· Point d'éclair	Non applicable.
------------------	-----------------

· Inflammabilité (solide, gaz):	Non applicable.
---------------------------------	-----------------

· Température d'inflammation:	304 °C
-------------------------------	--------

· Température de décomposition:	Non déterminé.
---------------------------------	----------------

· Température d'auto-inflammabilité:	Le produit ne s'enflamme pas spontanément.
--------------------------------------	--

· Propriétés explosives:	Le produit n'est pas explosif.
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· Limites d'explosion:

Inférieure:	Non déterminé.
-------------	----------------

Supérieure:	Non déterminé.
-------------	----------------

· Pression de vapeur:	Non déterminé.
-----------------------	----------------

· Densité:	Non déterminée.
------------	-----------------

· Densité relative	Non déterminé.
--------------------	----------------

· Densité de vapeur:	Non déterminé.
----------------------	----------------

· Taux d'évaporation:	Non déterminé.
-----------------------	----------------

· Solubilité dans/miscibilité avec l'eau:	Pas ou peu miscible
---	---------------------

· Coefficient de partage: n-octanol/eau:	Non déterminé.
--	----------------

· Viscosité:

Dynamique:	Non déterminé.
------------	----------------

Cinématique:	Non déterminé.
--------------	----------------

· Teneur en solvants:

VOC (CE)	0,00 %
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Teneur en substances solides:	76,0 %
-------------------------------	--------

(suite page 6)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 01.04.2020

Révision: 01.04.2020

Nom du produit: GRAY RESIN THERMOPLASTIC

(suite de la page 5)

· **9.2 Autres informations**

Pas d'autres informations importantes disponibles.

RUBRIQUE 10: Stabilité et réactivité

- **10.1 Réactivité** Pas d'autres informations importantes disponibles.
- **10.2 Stabilité chimique**
- **Décomposition thermique/conditions à éviter:** Pas de décomposition en cas d'usage conforme.
- **10.3 Possibilité de réactions dangereuses** Aucune réaction dangereuse connue.
- **10.4 Conditions à éviter** Pas d'autres informations importantes disponibles.
- **10.5 Matières incompatibles:** Pas d'autres informations importantes disponibles.
- **10.6 Produits de décomposition dangereux:** Pas de produits de décomposition dangereux connus

RUBRIQUE 11: Informations toxicologiques

- **11.1 Informations sur les effets toxicologiques**
- **Toxicité aiguë**
Toxique par ingestion ou par contact cutané.
Nocif par inhalation.
- **Effet primaire d'irritation:**
- **Corrosion cutanée/irritation cutanée**
Provoque une irritation cutanée.
- **Lésions oculaires graves/irritation oculaire**
Provoque une sévère irritation des yeux.
- **Sensibilisation respiratoire ou cutanée**
Peut provoquer une allergie cutanée.
- **Effets CMR (cancérogène, mutagène et toxique pour la reproduction)**
- **Mutagénicité sur les cellules germinales**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Cancérogénicité** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Toxicité pour la reproduction**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Toxicité spécifique pour certains organes cibles - exposition unique**
Peut irriter les voies respiratoires.
- **Toxicité spécifique pour certains organes cibles - exposition répétée**
Risque présumé d'effets graves pour les organes à la suite d'expositions répétées ou d'une exposition prolongée.
- **Danger par aspiration** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

RUBRIQUE 12: Informations écologiques

- **12.1 Toxicité**
- **Toxicité aquatique:** Pas d'autres informations importantes disponibles.
- **12.2 Persistance et dégradabilité** Pas d'autres informations importantes disponibles.
- **12.3 Potentiel de bioaccumulation** Pas d'autres informations importantes disponibles.
- **12.4 Mobilité dans le sol** Pas d'autres informations importantes disponibles.
- **Autres indications écologiques:**
- **Indications générales:**
Catégorie de pollution des eaux 1 (D) (Classification propre): peu polluant
Ne pas laisser le produit, non dilué ou en grande quantité, pénétrer la nappe phréatique, les eaux ou les canalisations.

(suite page 7)

Fiche de données de sécurité
selon 1907/2006/CE, Article 31

Date d'impression : 01.04.2020

Révision: 01.04.2020

Nom du produit: GRAY RESIN THERMOPLASTIC


(suite de la page 6)

- 12.5 Résultats des évaluations PBT et VPVB
- PBT: Non applicable.
- vPvB: Non applicable.
- 12.6 Autres effets néfastes Pas d'autres informations importantes disponibles.

RUBRIQUE 13: Considérations relatives à l'élimination

- 13.1 Méthodes de traitement des déchets
- **Recommandation:** Ne doit pas être évacué avec les ordures ménagères. Ne pas laisser pénétrer dans les égouts.
- **Emballages non nettoyés:**
- **Recommandation:** Evacuation conformément aux prescriptions légales.

RUBRIQUE 14: Informations relatives au transport

- | | |
|---|---|
| · 14.1 Numéro ONU | |
| · ADR, IMDG, IATA | UN2810 |
| · 14.2 Désignation officielle de transport de l'ONU | |
| · ADR | 2810 LIQUIDE ORGANIQUE TOXIQUE, N.S.A.
(Poly(Methyl Methacrylate), fer) |
| · IMDG, IATA | TOXIC LIQUID, ORGANIC, N.O.S. (Poly(Methyl Methacrylate), iron) |
| · 14.3 Classe(s) de danger pour le transport | |
| · ADR, IMDG, IATA | |
| |  |
| · Classe | 6.1 Matières toxiques. |
| · Étiquette | 6.1 |
| · 14.4 Groupe d'emballage | |
| · ADR, IMDG, IATA | II |
| · 14.5 Dangers pour l'environnement: | Non applicable. |
| · 14.6 Précautions particulières à prendre par l'utilisateur | Attention: Matières toxiques. |
| · Numéro d'identification du danger (Indice Kemler): | 60 |
| · No EMS: | F-A,S-A |
| · Stowage Category | B |
| · Stowage Code | SW2 Clear of living quarters. |
| · 14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC | Non applicable. |
| · Indications complémentaires de transport: | |
| · ADR | |
| · Quantités limitées (LQ) | 100 ml |

(suite page 8)

FR

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 01.04.2020

Révision: 01.04.2020

Nom du produit: GRAY RESIN THERMOPLASTIC

(suite de la page 7)

· Quantités exceptées (EQ)	Code: E4 Quantité maximale nette par emballage intérieur: 1 ml Quantité maximale nette par emballage extérieur: 500 ml
· Catégorie de transport	2
· Code de restriction en tunnels	D/E
· IMDG	
· Limited quantities (LQ)	100 ml
· Excepted quantities (EQ)	Code: E4 Maximum net quantity per inner packaging: 1 ml Maximum net quantity per outer packaging: 500 ml
· "Règlement type" de l'ONU:	UN 2810 LIQUIDE ORGANIQUE TOXIQUE, N.S.A. (POLY(METHYL METHACRYLATE), FER), 6.1, II

RUBRIQUE 15: Informations relatives à la réglementation

- **15.1 Réglementations/législation particulières à la substance ou au mélange en matière de sécurité, de santé et d'environnement**
- **Directive 2012/18/UE**
- **Substances dangereuses désignées - ANNEXE I** Aucun des composants n'est compris.
- **RÈGLEMENT (CE) N° 1907/2006 ANNEXE XVII** Conditions de limitation: 3
- **15.2 Évaluation de la sécurité chimique:** Une évaluation de la sécurité chimique n'a pas été réalisée.

RUBRIQUE 16: Autres informations

Ces indications sont fondées sur l'état actuel de nos connaissances, mais ne constituent pas une garantie quant aux propriétés du produit et ne donnent pas lieu à un rapport juridique contractuel.

· **Phrases importantes**

H241 Peut s'enflammer ou exploser sous l'effet de la chaleur.

H300 Mortel en cas d'ingestion.

H302 Nocif en cas d'ingestion.

H311 Toxique par contact cutané.

H312 Nocif par contact cutané.

H315 Provoque une irritation cutanée.

H317 Peut provoquer une allergie cutanée.

H319 Provoque une sévère irritation des yeux.

H332 Nocif par inhalation.

H335 Peut irriter les voies respiratoires.

H373 Risque présumé d'effets graves pour les organes à la suite d'expositions répétées ou d'une exposition prolongée.

· **Acronymes et abréviations:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Org. Perox. B: Peroxydes organiques – Type B

(suite page 9)

Fiche de données de sécurité
selon 1907/2006/CE, Article 31

Date d'impression : 01.04.2020

Révision: 01.04.2020

Nom du produit: GRAY RESIN THERMOPLASTIC

(suite de la page 8)

*Acute Tox. 2: Toxicité aiguë - voie orale – Catégorie 2**Acute Tox. 4: Toxicité aiguë - voie orale – Catégorie 4**Acute Tox. 3: Toxicité aiguë - voie cutanée – Catégorie 3**Skin Irrit. 2: Corrosion cutanée/irritation cutanée – Catégorie 2**Eye Irrit. 2: Lésions oculaires graves/irritation oculaire – Catégorie 2**Skin Sens. 1: Sensibilisation cutanée – Catégorie 1**STOT SE 3: Toxicité spécifique pour certains organes cibles (exposition unique) – Catégorie 3**STOT RE 2: Toxicité spécifique pour certains organes cibles (exposition répétée) – Catégorie 2*

FR

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 01.04.2020

überarbeitet am: 01.04.2020

ABSCHNITT 1: Bezeichnung des Stoffs beziehungsweise des Gemischs und des Unternehmens

- **1.1 Produktidentifikator**
- **Handelsname:** GRAY RESIN THERMOPLASTIC
- **Artikelnummer:** 1210
- **1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird**
Keine weiteren relevanten Informationen verfügbar.
- **Verwendung des Stoffes / des Gemisches** Laborchemikalien
- **1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt**
- **Hersteller/Lieferant:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com

Science Services GmbH
Unterhachinger Str. 75
81737 München Germany

Tel: +49(0)89 18 93 668-0
safety@scienceservices.de

Deutschland: +49 (0)89 19240, 24h Giftnotruf Munchen, www.toxinfo.org
Osterreich: +43 1406 43 43, Gesundheit Osterreich GmbH, 24 h
- **Auskunftgebender Bereich:** Product safety department
- **1.4 Notrufnummer:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

ABSCHNITT 2: Mögliche Gefahren

- **2.1 Einstufung des Stoffs oder Gemischs**
- **Einstufung gemäß Verordnung (EG) Nr. 1272/2008**



GHS06 Totenkopf mit gekreuzten Knochen

Acute Tox. 3 H301 Giftig bei Verschlucken.

Acute Tox. 3 H311 Giftig bei Hautkontakt.



GHS08 Gesundheitsgefahr

STOT RE 2 H373 Kann die Organe schädigen bei längerer oder wiederholter Exposition.



GHS07

Acute Tox. 4 H332 Gesundheitsschädlich bei Einatmen.

Skin Irrit. 2 H315 Verursacht Hautreizungen.

(Fortsetzung auf Seite 2)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 01.04.2020

überarbeitet am: 01.04.2020

Handelsname: GRAY RESIN THERMOPLASTIC

(Fortsetzung von Seite 1)

Eye Irrit. 2 H319 Verursacht schwere Augenreizung.
 Skin Sens. 1 H317 Kann allergische Hautreaktionen verursachen.
 STOT SE 3 H335 Kann die Atemwege reizen.

2.2 Kennzeichnungselemente

Kennzeichnung gemäß Verordnung (EG) Nr. 1272/2008

Das Produkt ist gemäß CLP-Verordnung eingestuft und gekennzeichnet.

Gefahrenpiktogramme



GHS06 GHS08

Signalwort Gefahr

Gefahrbestimmende Komponenten zur Etikettierung:

Eisen
 Poly(Methyl Methacrylate)
 Graphit (natürlicher und synthetischer)
 Dibenzoylperoxid

Gefahrenhinweise

H301+H311 Giftig bei Verschlucken oder Hautkontakt.
 H332 Gesundheitsschädlich bei Einatmen.
 H315 Verursacht Hautreizungen.
 H319 Verursacht schwere Augenreizung.
 H317 Kann allergische Hautreaktionen verursachen.
 H335 Kann die Atemwege reizen.
 H373 Kann die Organe schädigen bei längerer oder wiederholter Exposition.

Sicherheitshinweise

P301+P310 **BEI VERSCHLUCKEN: Sofort GIFTINFORMATIONSZENTRUM/Arzt anrufen.**
 P321 Besondere Behandlung (siehe auf diesem Kennzeichnungsetikett).
 P330 Mund ausspülen.
 P305+P351+P338 **BEI KONTAKT MIT DEN AUGEN: Einige Minuten lang behutsam mit Wasser spülen.**
 Eventuell vorhandene Kontaktlinsen nach Möglichkeit entfernen. Weiter spülen.
 P361+P364 Alle kontaminierten Kleidungsstücke sofort ausziehen und vor erneutem Tragen waschen.
 P405 Unter Verschluss aufbewahren.
 P501 Entsorgung des Inhalts / des Behälters gemäß den örtlichen / regionalen / nationalen / internationalen Vorschriften.

2.3 Sonstige Gefahren

Ergebnisse der PBT- und vPvB-Beurteilung

- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.

ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

3.2 Chemische Charakterisierung: Gemische

• **Beschreibung:** Gemisch aus nachfolgend angeführten Stoffen mit ungefährlichen Beimengungen.

Gefährliche Inhaltsstoffe:

CAS: 7439-89-6	Eisen	>25-≤50%
EINECS: 231-096-4	☠ Acute Tox. 2, H300; ☠ STOT RE 2, H373; ⚠ Skin Irrit. 2, H315	
CAS: 9011-14-7	Poly(Methyl Methacrylate)	>25-≤50%
	☠ Acute Tox. 3, H311; ⚠ Acute Tox. 4, H302; ⚠ Skin Irrit. 2, H315; ⚠ Eye Irrit. 2, H319; STOT SE 3, H335	

(Fortsetzung auf Seite 3)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 01.04.2020

überarbeitet am: 01.04.2020

Handelsname: GRAY RESIN THERMOPLASTIC

(Fortsetzung von Seite 2)

CAS: 7782-42-5 EINECS: 231-955-3	Graphit (natürlicher und synthetischer) ! Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	>10- ≤25%
CAS: 94-36-0 EINECS: 202-327-6	Dibenzoylperoxid ⚠ Org. Perox. B, H241; ⚠ Eye Irrit. 2, H319; Skin Sens. 1, H317	≤2,5%

· **Zusätzliche Hinweise:** Der Wortlaut der angeführten Gefahrenhinweise ist dem Abschnitt 16 zu entnehmen.

ABSCHNITT 4: Erste-Hilfe-Maßnahmen

· 4.1 Beschreibung der Erste-Hilfe-Maßnahmen

· Allgemeine Hinweise:

Mit Produkt verunreinigte Kleidungsstücke unverzüglich entfernen.

Vergiftungssymptome können erst nach vielen Stunden auftreten, deshalb ärztliche Überwachung mindestens 48 Stunden nach einem Unfall.

Atemschutz erst nach Entfernen verunreinigter Kleidungsstücke abnehmen.

Bei unregelmäßiger Atmung oder Atemstillstand künstliche Beatmung.

· Nach Einatmen:

Frischlucht- oder Sauerstoffzufuhr; ärztliche Hilfe in Anspruch nehmen.

Bei Bewusstlosigkeit Lagerung und Transport in stabiler Seitenlage.

· Nach Hautkontakt: Sofort mit Wasser und Seife abwaschen und gut nachspülen.

· Nach Augenkontakt:

Augen mehrere Minuten bei geöffnetem Lidspalt unter fließendem Wasser spülen. Bei anhaltenden Beschwerden Arzt konsultieren.

· Nach Verschlucken: Kein Erbrechen herbeiführen, sofort ärztliche Hilfe zuziehen.

· 4.2 Wichtigste akute und verzögert auftretende Symptome und Wirkungen

Keine weiteren relevanten Informationen verfügbar.

· 4.3 Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung

Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

· 5.1 Löschmittel

· **Geeignete Löschmittel:** Feuerlöschmaßnahmen auf die Umgebung abstimmen.

· 5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren

Keine weiteren relevanten Informationen verfügbar.

· 5.3 Hinweise für die Brandbekämpfung

· **Besondere Schutzausrüstung:** Atemschutzgerät anlegen.

ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

· 6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren

Nicht erforderlich.

· 6.2 Umweltschutzmaßnahmen: Nicht in die Kanalisation/Oberflächenwasser/Grundwasser gelangen lassen.

· 6.3 Methoden und Material für Rückhaltung und Reinigung:

Mit flüssigkeitsbindendem Material (Sand, Kieselgur, Säurebinder, Universalbinder, Sägemehl) aufnehmen.

Kontaminiertes Material als Abfall nach Abschnitt 13 entsorgen.

Für ausreichende Lüftung sorgen.

· 6.4 Verweis auf andere Abschnitte

Informationen zur sicheren Handhabung siehe Abschnitt 7.

Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.

(Fortsetzung auf Seite 4)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 01.04.2020

überarbeitet am: 01.04.2020

Handelsname: GRAY RESIN THERMOPLASTIC

(Fortsetzung von Seite 3)

Informationen zur Entsorgung siehe Abschnitt 13.

ABSCHNITT 7: Handhabung und Lagerung

- **7.1 Schutzmaßnahmen zur sicheren Handhabung**
Für gute Belüftung/Absaugung am Arbeitsplatz sorgen.
Behälter mit Vorsicht öffnen und handhaben.
Aerosolbildung vermeiden.
- **Hinweise zum Brand- und Explosionsschutz:** Atemschutzgeräte bereithalten.
- **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**
- **Lagerung:**
- **Anforderung an Lagerräume und Behälter:** Keine besonderen Anforderungen.
- **Zusammenlagerungshinweise:** Nicht erforderlich.
- **Weitere Angaben zu den Lagerbedingungen:** Behälter dicht geschlossen halten.
- **Lagerklasse:**
- **Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV):** -
- **7.3 Spezifische Endanwendungen** Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen

- **Zusätzliche Hinweise zur Gestaltung technischer Anlagen:** Keine weiteren Angaben, siehe Abschnitt 7.
- **8.1 Zu überwachende Parameter**
- **Bestandteile mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten:**
Das Produkt enthält keine relevanten Mengen von Stoffen mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten.
- **Zusätzliche Hinweise:** Als Grundlage dienen die bei der Erstellung gültigen Listen.
- **8.2 Begrenzung und Überwachung der Exposition**
- **Persönliche Schutzausrüstung:**
- **Allgemeine Schutz- und Hygienemaßnahmen:**
Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.
Beschmutzte, getränkte Kleidung sofort ausziehen.
Vor den Pausen und bei Arbeitsende Hände waschen.
Getrennte Aufbewahrung der Schutzkleidung.
Berührung mit den Augen und der Haut vermeiden.
- **Atemschutz:**
Bei kurzzeitiger oder geringer Belastung Atemfiltergerät; bei intensiver bzw. längerer Exposition umluftunabhängiges Atemschutzgerät verwenden.
- **Handschutz:**



Schutzhandschuhe

Das Handschuhmaterial muss undurchlässig und beständig gegen das Produkt / den Stoff / die Zubereitung sein. Aufgrund fehlender Tests kann keine Empfehlung zum Handschuhmaterial für das Produkt / die Zubereitung / das Chemikaliengemisch abgegeben werden.

Auswahl des Handschuhmaterials unter Beachtung der Durchbruchzeiten, Permeationsraten und der Degradation.

- **Handschuhmaterial**

Die Auswahl eines geeigneten Handschuhs ist nicht nur vom Material, sondern auch von weiteren Qualitätsmerkmalen abhängig und von Hersteller zu Hersteller unterschiedlich. Da das Produkt eine Zubereitung

(Fortsetzung auf Seite 5)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 01.04.2020

überarbeitet am: 01.04.2020

Handelsname: GRAY RESIN THERMOPLASTIC

(Fortsetzung von Seite 4)

aus mehreren Stoffen darstellt, ist die Beständigkeit von Handschuhmaterialen nicht vorausberechenbar und muß deshalb vor dem Einsatz überprüft werden.

· **Durchdringungszeit des Handschuhmaterials**

Die genaue Durchbruchzeit ist beim Schutzhandschuhhersteller zu erfahren und einzuhalten.

· **Augenschutz:**



Dichtschließende Schutzbrille

ABSCHNITT 9: Physikalische und chemische Eigenschaften

· **9.1 Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften**

· **Allgemeine Angaben**

· **Aussehen:**

Form: Fester Stoff

Farbe: Grau

· **Geruch:** Mild

· **Geruchsschwelle:** Nicht bestimmt.

· **pH-Wert:** Nicht bestimmt.

· **Zustandsänderung**

Schmelzpunkt/Gefrierpunkt: Nicht bestimmt.

Siedebeginn und Siedebereich: 3.000 °C

· **Flammpunkt:** Nicht anwendbar.

· **Entzündbarkeit (fest, gasförmig):** Nicht anwendbar.

· **Zündtemperatur:** 304 °C

· **Zersetzungstemperatur:** Nicht bestimmt.

· **Selbstentzündungstemperatur:** Das Produkt ist nicht selbstentzündlich.

· **Explosive Eigenschaften:** Das Produkt ist nicht explosionsgefährlich.

· **Explosionsgrenzen:**

Untere: Nicht bestimmt.

Obere: Nicht bestimmt.

· **Dampfdruck:** Nicht bestimmt.

· **Dichte:** Nicht bestimmt.

· **Relative Dichte** Nicht bestimmt.

· **Dampfdichte** Nicht bestimmt.

· **Verdampfungsgeschwindigkeit** Nicht bestimmt.

· **Löslichkeit in / Mischbarkeit mit**

Wasser: Nicht bzw. wenig mischbar.

· **Verteilungskoeffizient: n-Octanol/Wasser:** Nicht bestimmt.

· **Viskosität:**

Dynamisch: Nicht bestimmt.

Kinematisch: Nicht bestimmt.

(Fortsetzung auf Seite 6)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 01.04.2020

überarbeitet am: 01.04.2020

Handelsname: GRAY RESIN THERMOPLASTIC

(Fortsetzung von Seite 5)

· Lösemittelgehalt: VOC (EU)	0,00 %
· Festkörpergehalt:	76,0 %
· 9.2 Sonstige Angaben	Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 10: Stabilität und Reaktivität

- **10.1 Reaktivität** Keine weiteren relevanten Informationen verfügbar.
- **10.2 Chemische Stabilität**
- **Thermische Zersetzung / zu vermeidende Bedingungen:**
Keine Zersetzung bei bestimmungsgemäßer Verwendung.
- **10.3 Möglichkeit gefährlicher Reaktionen** Keine gefährlichen Reaktionen bekannt.
- **10.4 Zu vermeidende Bedingungen** Keine weiteren relevanten Informationen verfügbar.
- **10.5 Unverträgliche Materialien:** Keine weiteren relevanten Informationen verfügbar.
- **10.6 Gefährliche Zersetzungsprodukte:** Keine gefährlichen Zersetzungsprodukte bekannt.

ABSCHNITT 11: Toxikologische Angaben

- **11.1 Angaben zu toxikologischen Wirkungen**
- **Akute Toxizität**
Giftig bei Verschlucken oder Hautkontakt.
Gesundheitsschädlich bei Einatmen.
- **Primäre Reizwirkung:**
- **Ätz-/Reizwirkung auf die Haut**
Verursacht Hautreizungen.
- **Schwere Augenschädigung/-reizung**
Verursacht schwere Augenreizung.
- **Sensibilisierung der Atemwege/Haut**
Kann allergische Hautreaktionen verursachen.
- **CMR-Wirkungen (krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkung)**
- **Keimzell-Mutagenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Karzinogenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Reproduktionstoxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Spezifische Zielorgan-Toxizität bei einmaliger Exposition**
Kann die Atemwege reizen.
- **Spezifische Zielorgan-Toxizität bei wiederholter Exposition**
Kann die Organe schädigen bei längerer oder wiederholter Exposition.
- **Aspirationsgefahr** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

ABSCHNITT 12: Umweltbezogene Angaben

- **12.1 Toxizität**
- **Aquatische Toxizität:** Keine weiteren relevanten Informationen verfügbar.
- **12.2 Persistenz und Abbaubarkeit** Keine weiteren relevanten Informationen verfügbar.
- **12.3 Bioakkumulationspotenzial** Keine weiteren relevanten Informationen verfügbar.
- **12.4 Mobilität im Boden** Keine weiteren relevanten Informationen verfügbar.

(Fortsetzung auf Seite 7)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 01.04.2020

überarbeitet am: 01.04.2020

Handelsname: GRAY RESIN THERMOPLASTIC


(Fortsetzung von Seite 6)

- **Weitere ökologische Hinweise:**
- **Allgemeine Hinweise:**
Wassergefährdungsklasse 1 (Selbsteinstufung): schwach wassergefährdend
Nicht unverdünnt bzw. in größeren Mengen in das Grundwasser, in Gewässer oder in die Kanalisation gelangen lassen.
- **12.5 Ergebnisse der PBT- und vPvB-Beurteilung**
- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.
- **12.6 Andere schädliche Wirkungen** Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 13: Hinweise zur Entsorgung

- **13.1 Verfahren der Abfallbehandlung**
- **Empfehlung:** Darf nicht zusammen mit Hausmüll entsorgt werden. Nicht in die Kanalisation gelangen lassen.
- **Ungereinigte Verpackungen:**
- **Empfehlung:** Entsorgung gemäß den behördlichen Vorschriften.

ABSCHNITT 14: Angaben zum Transport

- | | |
|---|---|
| <ul style="list-style-type: none"> · 14.1 UN-Nummer · ADR, IMDG, IATA | UN2810 |
| <ul style="list-style-type: none"> · 14.2 Ordnungsgemäße UN-Versandbezeichnung · ADR · IMDG, IATA | 2810 GIFTIGER ORGANISCHER FLÜSSIGER STOFF, N.A.G. (Poly(Methyl Methacrylate), Eisen)
TOXIC LIQUID, ORGANIC, N.O.S. (Poly(Methyl Methacrylate), iron) |
| <ul style="list-style-type: none"> · 14.3 Transportgefahrenklassen · ADR, IMDG, IATA | <div style="text-align: center;">  </div> |
| <ul style="list-style-type: none"> · Klasse · Gefahrzettel | 6.1 Giftige Stoffe
6.1 |
| <ul style="list-style-type: none"> · 14.4 Verpackungsgruppe · ADR, IMDG, IATA | II |
| <ul style="list-style-type: none"> · 14.5 Umweltgefahren: | Nicht anwendbar. |
| <ul style="list-style-type: none"> · 14.6 Besondere Vorsichtsmaßnahmen für den Verwender · Nummer zur Kennzeichnung der Gefahr (Kemler-Zahl): · EMS-Nummer: · Stowage Category · Stowage Code | Achtung: Giftige Stoffe
60
F-A,S-A
B
SW2 Clear of living quarters. |
| <ul style="list-style-type: none"> · 14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code | Nicht anwendbar. |

(Fortsetzung auf Seite 8)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 01.04.2020

überarbeitet am: 01.04.2020

Handelsname: GRAY RESIN THERMOPLASTIC

(Fortsetzung von Seite 7)

· Transport/weitere Angaben:

· ADR

- **Begrenzte Menge (LQ)** 100 ml
- **Freigestellte Mengen (EQ)** Code: E4
- Höchste Nettomenge je Innenverpackung: 1 ml*
- Höchste Nettomenge je Außenverpackung: 500 ml*
- **Beförderungskategorie** 2
- **Tunnelbeschränkungscode** D/E

· IMDG

- **Limited quantities (LQ)** 100 ml
- **Excepted quantities (EQ)** Code: E4
- Maximum net quantity per inner packaging: 1 ml*
- Maximum net quantity per outer packaging: 500 ml*

- **UN "Model Regulation":** UN 2810 GIFTIGER ORGANISCHER FLÜSSIGER STOFF,
N.A.G. (POLY(METHYL METHACRYLATE), EISEN), 6.1,
II

ABSCHNITT 15: Rechtsvorschriften

- **15.1 Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch**
- **Richtlinie 2012/18/EU**
- **Namentlich aufgeführte gefährliche Stoffe - ANHANG I** Keiner der Inhaltsstoffe ist enthalten.
- **VERORDNUNG (EG) Nr. 1907/2006 ANHANG XVII** Beschränkungsbedingungen: 3
- **Nationale Vorschriften:**
- **Wassergefährdungsklasse: WGK 1** (Selbsteinstufung): schwach wassergefährdend.
- **Sonstige Vorschriften, Beschränkungen und Verbotsverordnungen**
Das Produkt unterliegt der Anlage 2 der Chemikalienverbotsverordnung (ChemVerbotsV) - Anforderungen in Bezug auf die Abgabe
- **15.2 Stoffsicherheitsbeurteilung:** Eine Stoffsicherheitsbeurteilung wurde nicht durchgeführt.

ABSCHNITT 16: Sonstige Angaben

Die Angaben stützen sich auf den heutigen Stand unserer Kenntnisse, sie stellen jedoch keine Zusicherung von Produkteigenschaften dar und begründen kein vertragliches Rechtsverhältnis.

· Relevante Sätze

- H241 Erwärmung kann Brand oder Explosion verursachen.
- H300 Lebensgefahr bei Verschlucken.
- H302 Gesundheitsschädlich bei Verschlucken.
- H311 Giftig bei Hautkontakt.
- H312 Gesundheitsschädlich bei Hautkontakt.
- H315 Verursacht Hautreizungen.
- H317 Kann allergische Hautreaktionen verursachen.
- H319 Verursacht schwere Augenreizung.
- H332 Gesundheitsschädlich bei Einatmen.
- H335 Kann die Atemwege reizen.
- H373 Kann die Organe schädigen bei längerer oder wiederholter Exposition.

(Fortsetzung auf Seite 9)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

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Handelsname: GRAY RESIN THERMOPLASTIC

(Fortsetzung von Seite 8)

· Abkürzungen und Akronyme:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Org. Perox. B: Organische Peroxide – Typ B

Acute Tox. 2: Akute Toxizität - oral – Kategorie 2

Acute Tox. 4: Akute Toxizität - oral – Kategorie 4

Acute Tox. 3: Akute Toxizität - dermal – Kategorie 3

Skin Irrit. 2: Hautreizende/-ätzende Wirkung – Kategorie 2

Eye Irrit. 2: Schwere Augenschädigung/Augenreizung – Kategorie 2

Skin Sens. 1: Sensibilisierung der Haut – Kategorie 1

STOT SE 3: Spezifische Zielorgan-Toxizität (einmalige Exposition) – Kategorie 3

STOT RE 2: Spezifische Zielorgan-Toxizität (wiederholte Exposition) – Kategorie 2

DE

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 01.04.2020

Revisione: 01.04.2020

SEZIONE 1: Identificazione della sostanza o della miscela e della società/impresa

- **1.1 Identificatore del prodotto**
- **Denominazione commerciale:** GRAY RESIN THERMOPLASTIC
- **Articolo numero:** 1210
- **1.2 Usi identificati pertinenti della sostanza o della miscela e usi sconsigliati**
Non sono disponibili altre informazioni.
- **Utilizzazione della Sostanza / del Preparato** Prodotti chimici per laboratorio
- **1.3 Informazioni sul fornitore della scheda di dati di sicurezza**
- **Produttore/fornitore:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Società Italiana Chimici**
Via Rio Nell Ellba 140
00138 Rome, Italy
Tel: 39 06 8800211
Fax: 39 30 06 8815313
Web: www.sichim.com
- **Informazioni fornite da:** Product safety department
- **1.4 Numero telefonico di emergenza:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

SEZIONE 2: Identificazione dei pericoli

- **2.1 Classificazione della sostanza o della miscela**
- **Classificazione secondo il regolamento (CE) n. 1272/2008**



GHS06 teschio e tibie incrociate

Acute Tox. 3 H301 Tossico se ingerito.

Acute Tox. 3 H311 Tossico per contatto con la pelle.



GHS08 pericolo per la salute

STOT RE 2 H373 Può provocare danni agli organi in caso di esposizione prolungata o ripetuta.



GHS07

Acute Tox. 4 H332 Nocivo se inalato.

Skin Irrit. 2 H315 Provoca irritazione cutanea.

Eye Irrit. 2 H319 Provoca grave irritazione oculare.

Skin Sens. 1 H317 Può provocare una reazione allergica cutanea.

STOT SE 3 H335 Può irritare le vie respiratorie.

(continua a pagina 2)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 01.04.2020

Revisione: 01.04.2020

Denominazione commerciale: GRAY RESIN THERMOPLASTIC

(Segue da pagina 1)

2.2 Elementi dell'etichetta**Etichettatura secondo il regolamento (CE) n. 1272/2008**

Il prodotto è classificato ed etichettato conformemente al regolamento CLP.

Pittogrammi di pericolo

GHS06 GHS08

Avvertenza Pericolo**Componenti pericolosi che ne determinano l'etichettatura:**

ferro

Poly(Methyl Methacrylate)

grafite

perossido di dibenzoile

Indicazioni di pericolo

H301+H311 Tossico se ingerito o a contatto con la pelle.

H332 Nocivo se inalato.

H315 Provoca irritazione cutanea.

H319 Provoca grave irritazione oculare.

H317 Può provocare una reazione allergica cutanea.

H335 Può irritare le vie respiratorie.

H373 Può provocare danni agli organi in caso di esposizione prolungata o ripetuta.

Consigli di prudenzaP301+P310 **IN CASO DI INGESTIONE:** contattare immediatamente un CENTRO ANTIVELENI/un medico.

P321 Trattamento specifico (vedere su questa etichetta).

P330 Sciacquare la bocca.

P305+P351+P338 **IN CASO DI CONTATTO CON GLI OCCHI:** sciacquare accuratamente per parecchi minuti. Togliere le eventuali lenti a contatto se è agevole farlo. Continuare a sciacquare.

P361+P364 Togliere immediatamente tutti gli indumenti contaminati e lavarli prima di indossarli nuovamente.

P405 Conservare sotto chiave.

P501 Smaltire il prodotto/recipiente in conformità con le disposizioni locali / regionali / nazionali / internazionali.

2.3 Altri pericoli**Risultati della valutazione PBT e vPvB**

PBT: Non applicabile.

vPvB: Non applicabile.

SEZIONE 3: Composizione/informazioni sugli ingredienti**3.2 Caratteristiche chimiche: Miscela**

Descrizione: Miscela delle seguenti sostanze con additivi non pericolosi.

Sostanze pericolose:

CAS: 7439-89-6	ferro	>25-≤50%
EINECS: 231-096-4	☠ Acute Tox. 2, H300; ☠ STOT RE 2, H373; ⚠ Skin Irrit. 2, H315	
CAS: 9011-14-7	Poly(Methyl Methacrylate)	>25-≤50%
	☠ Acute Tox. 3, H311; ⚠ Acute Tox. 4, H302; ⚠ Skin Irrit. 2, H315; ⚠ Eye Irrit. 2, H319; STOT SE 3, H335	

(continua a pagina 3)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 01.04.2020

Revisione: 01.04.2020

Denominazione commerciale: GRAY RESIN THERMOPLASTIC

CAS: 7782-42-5 EINECS: 231-955-3	grafite ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	(Segue da pagina 2) >10- ≤25%
CAS: 94-36-0 EINECS: 202-327-6	perossido di dibenzoile ⚠ Org. Perox. B, H241; ⚠ Eye Irrit. 2, H319; Skin Sens. 1, H317	≤2,5%

· **Ulteriori indicazioni:** Il testo dell'avvertenza dei pericoli citati può essere appreso dal capitolo 16

SEZIONE 4: Misure di primo soccorso

· **4.1 Descrizione delle misure di primo soccorso**

· **Indicazioni generali:**

Allontanare immediatamente gli abiti contaminati dal prodotto.

I sintomi di avvelenamento possono comparire dopo molte ore, per tale motivo è necessaria la sorveglianza di un medico nelle 48 ore successive all'incidente.

Levare la maschera protettiva solamente dopo aver tolto gli abiti contaminati.

In caso di respirazione irregolare o di blocco respiratorio praticare la respirazione artificiale.

· **Inalazione:**

Portare il soggetto in zona ben areata o somministrare ossigeno; chiedere l'intervento di un medico.

Se il soggetto è svenuto provvedere a tenerlo durante il trasporto in posizione stabile su un fianco.

· **Contatto con la pelle:** Lavare immediatamente con acqua e sapone sciacquando accuratamente.

· **Contatto con gli occhi:**

Lavare con acqua corrente per diversi minuti tenendo le palpebre ben aperte. Se persiste il dolore consultare il medico.

· **Ingestione:** Non provocare il vomito, chiamare subito il medico.

· **4.2 Principali sintomi ed effetti, sia acuti che ritardati** Non sono disponibili altre informazioni.

· **4.3 Indicazione dell'eventuale necessità di consultare immediatamente un medico e di trattamenti speciali**

Non sono disponibili altre informazioni.

SEZIONE 5: Misure antincendio

· **5.1 Mezzi di estinzione**

· **Mezzi di estinzione idonei:** Adottare provvedimenti antiincendio nei dintorni della zona colpita.

· **5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela** Non sono disponibili altre informazioni.

· **5.3 Raccomandazioni per gli addetti all'estinzione degli incendi**

· **Mezzi protettivi specifici:** Indossare il respiratore.

SEZIONE 6: Misure in caso di rilascio accidentale

· **6.1 Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza** Non necessario.

· **6.2 Precauzioni ambientali:** Impedire infiltrazioni nella fognatura/nelle acque superficiali/nelle acque freatiche.

· **6.3 Metodi e materiali per il contenimento e per la bonifica:**

Raccogliere il liquido con materiale assorbente (sabbia, tripoli, legante di acidi, legante universale, segatura).

Smaltimento del materiale contaminato conformemente al punto 13.

Provvedere ad una sufficiente areazione.

· **6.4 Riferimento ad altre sezioni**

Per informazioni relative ad una manipolazione sicura, vedere capitolo 7.

Per informazioni relative all'equipaggiamento protettivo ad uso personale vedere Capitolo 8.

Per informazioni relative allo smaltimento vedere Capitolo 13.

IT

(continua a pagina 4)

Scheda di dati di sicurezza ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 01.04.2020

Revisione: 01.04.2020

Denominazione commerciale: GRAY RESIN THERMOPLASTIC

(Segue da pagina 3)

SEZIONE 7: Manipolazione e immagazzinamento

- **7.1 Precauzioni per la manipolazione sicura**
Accurata ventilazione/aspirazione nei luoghi di lavoro.
Aprire e manipolare i recipienti con cautela.
Evitare la formazione di aerosol.
- **Indicazioni in caso di incendio ed esplosione:** Tener pronto il respiratore.
- **7.2 Condizioni per lo stoccaggio sicuro, comprese eventuali incompatibilità**
- **Stoccaggio:**
- **Requisiti dei magazzini e dei recipienti:** Non sono richiesti requisiti particolari.
- **Indicazioni sullo stoccaggio misto:** Non necessario.
- **Ulteriori indicazioni relative alle condizioni di immagazzinamento:** Mantenere i recipienti ermeticamente chiusi.
- **7.3 Usi finali particolari** Non sono disponibili altre informazioni.

SEZIONE 8: Controllo dell'esposizione/protezione individuale

- **Ulteriori indicazioni sulla struttura di impianti tecnici:** Nessun dato ulteriore, vedere punto 7.
- **8.1 Parametri di controllo**
- **Componenti i cui valori limite devono essere tenuti sotto controllo negli ambienti di lavoro:**
Il prodotto non contiene quantità rilevanti di sostanze i cui valori limite devono essere tenuti sotto controllo negli ambienti di lavoro.
- **Ulteriori indicazioni:** Le liste valide alla data di compilazione sono state usate come base.
- **8.2 Controlli dell'esposizione**
- **Mezzi protettivi individuali:**
- **Norme generali protettive e di igiene del lavoro:**
Tenere lontano da cibo, bevande e foraggi.
Togliere immediatamente gli abiti contaminati.
Lavarsi le mani prima dell'intervallo o a lavoro terminato.
Custodire separatamente l'equipaggiamento protettivo.
Evitare il contatto con gli occhi e la pelle.
- **Maschera protettiva:**
Nelle esposizioni brevi e minime utilizzare la maschera; nelle esposizioni più intense e durature indossare l'autorespiratore.
- **Guanti protettivi:**



Guanti protettivi

Il materiale dei guanti deve essere impermeabile e stabile contro il prodotto/ la sostanza/ la formulazione.
A causa della mancanza di tests non può essere consigliato alcun tipo di materiale per i guanti con cui manipolare il prodotto / la formulazione / la miscela di sostanze chimiche.
Scelta del materiale dei guanti in considerazione dei tempi di passaggio, dei tassi di permeazione e della degradazione.

- **Materiale dei guanti**
La scelta dei guanti adatti non dipende soltanto dal materiale bensì anche da altre caratteristiche di qualità variabili da un produttore a un altro. Poiché il prodotto rappresenta una formulazione di più sostanze, la stabilità dei materiali dei guanti non è calcolabile in anticipo e deve essere testata prima dell'impiego
- **Tempo di permeazione del materiale dei guanti**
Richiedere dal fornitore dei guanti il tempo di passaggio preciso il quale deve essere rispettato.

(continua a pagina 5)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 01.04.2020

Revisione: 01.04.2020

Denominazione commerciale: GRAY RESIN THERMOPLASTIC

(Segue da pagina 4)

· **Occhiali protettivi:**

Occhiali protettivi a tenuta

SEZIONE 9: Proprietà fisiche e chimiche

· 9.1 Informazioni sulle proprietà fisiche e chimiche fondamentali

· Indicazioni generali

· Aspetto:

Forma: Sostanza solida

Colore: Grigio

· **Odore:** Delicato

· **Soglia olfattiva:** Non definito.

· **valori di pH:** Non definito.

· Cambiamento di stato

Punto di fusione/punto di congelamento: Non definito.

Punto di ebollizione iniziale e intervallo di ebollizione: 3.000 °C

· **Punto di infiammabilità:** Non applicabile.

· **Infiammabilità (solidi, gas):** Non applicabile.

· **Temperatura di accensione:** 304 °C

· **Temperatura di decomposizione:** Non definito.

· **Temperatura di autoaccensione:** Prodotto non autoinfiammabile.

· **Proprietà esplosive:** Prodotto non esplosivo.

· Limiti di infiammabilità:

Inferiore: Non definito.

Superiore: Non definito.

· **Tensione di vapore:** Non definito.

· **Densità:** Non definito.

· **Densità relativa** Non definito.

· **Densità di vapore:** Non definito.

· **Velocità di evaporazione** Non definito.

· Solubilità in/Miscibilità con acqua:

Poco e/o non miscibile.

· **Coefficiente di ripartizione: n-ottanolo/acqua:** Non definito.

· Viscosità:

Dinamica: Non definito.

Cinematica: Non definito.

· Tenore del solvente:

VOC (CE) 0,00 %

Contenuto solido: 76,0 %

(continua a pagina 6)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 01.04.2020

Revisione: 01.04.2020

Denominazione commerciale: GRAY RESIN THERMOPLASTIC

(Segue da pagina 5)

· 9.2 Altre informazioni

Non sono disponibili altre informazioni.

SEZIONE 10: Stabilità e reattività

- 10.1 Reattività Non sono disponibili altre informazioni.
- 10.2 Stabilità chimica
- **Decomposizione termica/ condizioni da evitare:** Il prodotto non si decompone se utilizzato secondo le norme.
- 10.3 Possibilità di reazioni pericolose Non sono note reazioni pericolose.
- 10.4 Condizioni da evitare Non sono disponibili altre informazioni.
- 10.5 Materiali incompatibili: Non sono disponibili altre informazioni.
- 10.6 Prodotti di decomposizione pericolosi: Non sono noti prodotti di decomposizione pericolosi.

SEZIONE 11: Informazioni tossicologiche

- 11.1 Informazioni sugli effetti tossicologici
- **Tossicità acuta**
Tossico se ingerito o a contatto con la pelle.
Nocivo se inalato.
- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea**
Provoca irritazione cutanea.
- **Lesioni oculari gravi/irritazioni oculari gravi**
Provoca grave irritazione oculare.
- **Sensibilizzazione respiratoria o cutanea**
Può provocare una reazione allergica cutanea.
- **Effetti CMR (cancerogenicità, mutagenicità e tossicità per la riproduzione)**
- **Mutagenicità delle cellule germinali**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Cancerogenicità** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità per la riproduzione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione singola**
Può irritare le vie respiratorie.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione ripetuta**
Può provocare danni agli organi in caso di esposizione prolungata o ripetuta.
- **Pericolo in caso di aspirazione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.

SEZIONE 12: Informazioni ecologiche

- 12.1 Tossicità
- **Tossicità acquatica:** Non sono disponibili altre informazioni.
- 12.2 Persistenza e degradabilità Non sono disponibili altre informazioni.
- 12.3 Potenziale di bioaccumulo Non sono disponibili altre informazioni.
- 12.4 Mobilità nel suolo Non sono disponibili altre informazioni.
- **Ulteriori indicazioni in materia ambientale:**
- **Ulteriori indicazioni:**
Pericolosità per le acque classe 1 (D) (Autoclassificazione): poco pericoloso
Non immettere nelle acque freatiche, nei corsi d'acqua o nelle fognature non diluito o in grandi quantità.
- 12.5 Risultati della valutazione PBT e vPvB
- **PBT:** Non applicabile.
- **vPvB:** Non applicabile.

(continua a pagina 7)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 01.04.2020

Revisione: 01.04.2020

Denominazione commerciale: GRAY RESIN THERMOPLASTIC

(Segue da pagina 6)


· **12.6 Altri effetti avversi** Non sono disponibili altre informazioni.

SEZIONE 13: Considerazioni sullo smaltimento

- **13.1 Metodi di trattamento dei rifiuti**
- **Consigli:** Non smaltire il prodotto insieme ai rifiuti domestici Non immettere nelle fognature.
- **Imballaggi non puliti:**
- **Consigli:** Smaltimento in conformità con le disposizioni amministrative.

SEZIONE 14: Informazioni sul trasporto

- | | |
|--|--|
| · 14.1 Numero ONU
· ADR, IMDG, IATA | UN2810 |
| · 14.2 Nome di spedizione dell'ONU
· ADR

· IMDG, IATA | 2810 LIQUIDO ORGANICO TOSSICO, N.A.S. (Poly(Methyl Methacrylate), ferro)
TOXIC LIQUID, ORGANIC, N.O.S. (Poly(Methyl Methacrylate), iron) |
| · 14.3 Classi di pericolo connesso al trasporto
· ADR, IMDG, IATA | |
|  | |
| · Classe
· Etichetta | 6.1 Materie tossiche
6.1 |
| · 14.4 Gruppo di imballaggio
· ADR, IMDG, IATA | II |
| · 14.5 Pericoli per l'ambiente: | Non applicabile. |
| · 14.6 Precauzioni speciali per gli utilizzatori
· N° identificazione pericolo (Numero Kemler):
· Numero EMS:
· Stowage Category
· Stowage Code | Attenzione: Materie tossiche
60
F-A,S-A
B
SW2 Clear of living quarters. |
| · 14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL ed il codice IBC | Non applicabile. |
| · Trasporto/ulteriori indicazioni: | |
| · ADR
· Quantità limitate (LQ)
· Quantità esenti (EQ)

· Categoria di trasporto
· Codice di restrizione in galleria | 100 ml
Codice: E4
Quantità massima netta per imballaggio interno: 1 ml
Quantità massima netta per imballaggio esterno: 500 ml
2
D/E |

(continua a pagina 8)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 01.04.2020

Revisione: 01.04.2020

Denominazione commerciale: GRAY RESIN THERMOPLASTIC

(Segue da pagina 7)

· IMDG	
· Limited quantities (LQ)	100 ml
· Excepted quantities (EQ)	Code: E4 Maximum net quantity per inner packaging: 1 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 2810 LIQUIDO ORGANICO TOSSICO, N.A.S. (POLY(METHYL METHACRYLATE), FERRO), 6.1, II

SEZIONE 15: Informazioni sulla regolamentazione

- **15.1 Disposizioni legislative e regolamentari su salute, sicurezza e ambiente specifiche per la sostanza o la miscela**
- **Direttiva 2012/18/UE**
- **Sostanze pericolose specificate - ALLEGATO I** Nessuno dei componenti è contenuto.
- **REGOLAMENTO (CE) n. 1907/2006 ALLEGATO XVII** Restrizioni: 3
- **15.2 Valutazione della sicurezza chimica:** Una valutazione della sicurezza chimica non è stata effettuata.

SEZIONE 16: Altre informazioni

I dati sono riportati sulla base delle nostre conoscenze attuali, non rappresentano tuttavia alcuna garanzia delle caratteristiche del prodotto e non motivano alcun rapporto giuridico contrattuale.

- **Frasei rilevanti**
H241 Rischio d'incendio o di esplosione per riscaldamento.
H300 Letale se ingerito.
H302 Nocivo se ingerito.
H311 Tossico per contatto con la pelle.
H312 Nocivo per contatto con la pelle.
H315 Provoca irritazione cutanea.
H317 Può provocare una reazione allergica cutanea.
H319 Provoca grave irritazione oculare.
H332 Nocivo se inalato.
H335 Può irritare le vie respiratorie.
H373 Può provocare danni agli organi in caso di esposizione prolungata o ripetuta.
- **Abbreviazioni e acronimi:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Org. Perox. B: Perossidi organici – Tipo B
Acute Tox. 2: Tossicità acuta per via orale – Categoria 2
Acute Tox. 4: Tossicità acuta per via orale – Categoria 4
Acute Tox. 3: Tossicità acuta per via cutanea – Categoria 3
Skin Irrit. 2: Corrosione/irritazione della pelle – Categoria 2
Eye Irrit. 2: Gravi lesioni oculari/irritazione oculare – Categoria 2
Skin Sens. 1: Sensibilizzazione della pelle – Categoria 1
STOT SE 3: Tossicità specifica per organi bersaglio (esposizione singola) – Categoria 3
STOT RE 2: Tossicità specifica per organi bersaglio (esposizione ripetuta) – Categoria 2

인쇄일자: 2020.04.01

개정: 2020.04.01

1 화학제품과 회사에 관한 정보

제품제품책임자

· 제품명: GRAY RESIN THERMOPLASTIC

· 상품번호: 1210

해당 해당 물질이나 혼합물(관련 위험도 및 사용금지)도 추가적인 정보가 존재하지 않습니다.

· 제품의 권고 용도와 사용 제한 사항에 대한 실화 학품

· 안전데이터표(Safety Data Sheet)내 공급업체 관련 정보

· 제조자/수입자/유통업체 정보

Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com

Samchang Commercial Co., Ltd.
Yeo Eui Do
PO Box 1110
Seoul, Korea
Tel: 82 2 703 3040
Fax: 82 2 717 3298

Daedok Science, Co. Ltd.
34141 E10 Korea Advanced Institute of Science
Guseong-Dong, Yuseong-gu, Daejeon,
Korea
Phone: 82 42 710 2091
Fax: 82 42 367 0005
Website: www.labsmro.com

· 추가적인 정보: 특정 위험도 평가 가능 product safety department

· 비상연락 전화번호:

ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 유해성·위험성

· 순물질 또는 혼합물(이) 분류분류



두개골과 대퇴골

급성 독성 - 경구 - 구분 3

H301 삼키면 유독함

급성 독성 - 경피 - 구분 2

H310 피부와 접촉하면 치명적임

급성 독성 - 흡입 - 구분 3

H331 흡입하면 유독함



건강에 위험

특정표적장기 독성 - 반복 노출 - 구분 2 H373 장기간 또는 반복 노출되면 장기에 손상을 일으킬 수 있음



(2 쪽에 계속)

KR

물질안전보건자료

GHS에 따라라따

인쇄일자: 2020.04.01

개정: 2020.04.01

제품명: GRAY RESIN THERMOPLASTIC

(1 쪽부터계속)

- 피부 부식성/피부 자극성 - 구분 2 H315 피부에 자극을 일으킴
- 심한 눈 손상성/눈 자극성 - 구분 2 H319 눈에 심한 자극을 일으킴
- 피부 과민성 - 구분 1 H317 알레르기성 피부 반응을 일으킬 수 있음
- 특정표적장기 독성 - 1회 노출 - 구분 3 H335 호흡 자극성을 일으킬 수 있음

라벨표가요소요소

라벨표가요소

본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

그림문자



GHS06 GHS08

신호어 위험

상표상에명확히위험성이표시된성분:

- iron
- Poly(Methyl Methacrylate)
- 과산화 벤조일

유해위험성문구

- 삼키거나 흡입하면 유독함.
- 피부와 접촉하면 치명적임
- 피부에 자극을 일으킴
- 눈에 심한 자극을 일으킴
- 알레르기성 피부 반응을 일으킬 수 있음
- 호흡 자극성을 일으킬 수 있음
- 장기간 또는 반복 노출되면 장기에 손상을 일으킬 수 있음

예방조치문구문구

- 삼켰을 시: 즉시 독성물질센터/병원 연락 필요.
- (라벨 참조) 처치를 하시오.
- 입을 씻어내시오.
- 눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면 콘택트렌즈를 제거하십시오. 계속 씻으시오.
- 오염된 모든 의복은 즉시 벗고 다시 사용 전 세척하십시오.
- 밀봉하여 저장 하시오.
- (지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기 하시오.

기타기타유해성

- PBT(잔류성, 생물농축성, 독성물질) 및 vPvB(고 잔류성, 고 생물농축성 물질)에 해당하지 않음
- PBT(잔류성, 생물농축성, 독성물질)에 해당하지 않음.
- vPvB(고 잔류성, 고 생물농축성 물질)에 해당하지 않음.

3 구성성분의 명칭 및 함유량

화학적 특성: 혼합물

설명설명설명한 첨가물이 함유된 아래에 열거된 물질로 만들어진 혼합물.

위험요소요소

7439-89-6	iron	>25-≤50%
<p>⚠ 급성 독성 - 경구 - 구분 2, H300; ⚠ 특정표적장기 독성 - 반복 노출 - 구분 2, H373; ⚠ 피부 부식성/피부 자극성 - 구분 2, H315; 심한 눈 손상성/눈 자극성 - 구분 2, H319</p>		

(3 쪽에계속)

물질안전보건자료

GHS에 따라라따

인쇄일자: 2020.04.01

개정: 2020.04.01

제품명: GRAY RESIN THERMOPLASTIC

		(2 쪽부터 계속)
9011-14-7	Poly(Methyl Methacrylate) ⚠ 급성 독성 - 경피 - 구분 2, H310; 급성 독성 - 흡입 - 구분 3, H331; ⚠ 심한 눈 손상성/눈 자극성 - 구분 2, H319; 특정표적장기 독성 - 1회 노출 - 구분 3, H335	>25-≤50%
7782-42-5	Graphite ⚠ 심한 눈 손상성/눈 자극성 - 구분 2, H319	>10-≤25%
94-36-0	과산화 벤조일 ⚠ 유기과산화물 - 형식 B, H241; ⚠ 심한 눈 손상성/눈 자극성 - 구분 2, H319; 피부 과민성 - 구분 1, H317	≤2.5%

4 응급조치 요령

- **응급조치요령 내용내용**
- **일반정보정보**
 이제품에 의해 오염된 의상은 즉시 제거한다.
 중독 증상은 몇 시간이 지난 뒤에 발생할 수 있다. 따라서 사고가 발생한 후에 적어도 48 시간 동안은 의료진의 관찰을 받아야 한다.
 반드시 오염된 의상을 완전히 제거한 후에 호흡보호기를 떼어낸다.
 불규칙적인 호흡이나 호흡정지상태에서는 인공호흡을 실시한다.
- **흡입했을 때:**
 신선한 공기나 산소를 공급받고, 의료진의 도움을 구한다.
 환자가 의식을 잃었을 경우에는 안전한 자세에서 환자를 운반한다.
- **피부에 접촉했을 때:** 즉시 물과 비누로 씻고 잘 행군다.
- **눈에 눈에 들어갔을 때:** 흐르는 물에 눈을 몇 분 동안 씻어내고 나서, 증상이 지속될 경우에는 의사와 상담한다
- **먹었을 때:** 구토를 유발시키지 않는다. 즉시 의료진의 도움을 구한다.
- **기타 기타 사항의 주의사항:**
 가장 가장 중요한 응급조치요령 정보가 존재하지 않습니다.
 · **즉각적인 의료처리 및 특별처리가 필요함을 시사하는 징후** 정보가 존재하지 않습니다.

5 폭발·화재시 대처방법

- **소화제**
- **적절한 소화제:** 주변 환경에 맞는 화재진화방법을 사용한다.
- **본 화학물질이나 혼합물에서 발생가능한 특별한 위험성** 추가적인 정보가 존재하지 않습니다.
- **소방관에게 대한 신고사항**
- **화재 시 화재 예방 대책** 소화용 보호구 및 예방조치: 호흡보호장비 설치.

6 누출 사고 시 대처방법

- **개인적 예방조치, 보호장비 및 응급조치 절차 필요 없음.**
- **환경관리 관련 예방조치:** 하수도망/해수면 위 물질/지하수로 도달하지 않게 한다.
- **밀폐 밀폐 용기 등 화학정보에 소재 소재**
 액체가 혼합된 물질 (모래, 규조토, 산성 결합물, 일반 결합물, 톱밥)에 흡입되도록 한다.
 항목 13에 따라 오염된 물질을 쓰레기로 처분한다.
 충분한 환기가 되도록 한다.
- **추가적인 예방조치**
 안전관리에 대한 정보는 제7장을 참고하십시오.
 개인보호장비에 대한 정보는 제8장을 참고하십시오.
 쓰레기 처리에 대한 정보는 제13장을 참고하십시오.

물질안전보건자료 GHS에 따라라따

인쇄일자: 2020.04.01

개정: 2020.04.01

제품명: GRAY RESIN THERMOPLASTIC

(3 쪽부터 계속)

7 취급 및 저장방법

취급 취급 취급

안전 안전 안전을 위한 예방 조치

- 작업장에서는 통풍이 잘 되고/습기 제거가 잘 되게 주의한다.
- 조심스럽게 용기를 개봉하거나 취급한다.
- 연무질이 형성되는 것을 피한다.

화재 화재 위험을 유발시키고 예방 대책에 관한 정보 중 호흡 보호장비를 항상 비치한다.

· 혼합 위험성 및 안정성 조건

보관 보관 보관

- 안전 및 저장 방법 특별한 요구사항이 없음.
- 하중 및 온도/습도/빛/진동에 대한 특별한 주의 사항 없음
- 보관 조건에 관한 추가적인 정보를 새지않게 밀폐한 채 보관한다.
- 구체적 최종 사용자 추가적인 정보가 존재하지 않습니다.

8 노출방지 및 개인보호구

- 첨단시설 디자인에 대한 추가 정보: 더 이상 의 자료는 없음. 항목 7 을 참고하시 오.

통제 통제 통제 변수

· 화학 물질의 노출 기준, 생물학적 노출 기준 등:

- 본 제품에는 작업장에서 감시가 필요한 주요한 가치의 어떤 해당 재료의 양을 함유하고 있지 않다.
- 추가 정보 정보 소할 당시에 유효한 목록을 기초로 사용했다.

노출 통제 통제 통제

개인 개인 개인 구

· 일반적 보호 조치 및 위생 조치:

- 식료품, 음료수와 사료로부터 멀리 떨어져 두어 놓는다.
- 더러워지거나 음료수가 묻은 옷은 즉시 탈의한다.
- 휴식 전이나 작업이 끝날 때 마다 손을 씻는다.
- 방호복은 따로 보관한다.
- 눈과 피부와의 접촉은 피한다.

· 호흡기 보호 보호

- 단 시간 또는 경미한 오염의 경우에는 호흡 여과기를 사용한다. 심각한 또는 장기간 노출 시에는 호흡 보호 장비를 사용한다.

보충 보호 보호



보호용 장갑

장갑재질은 제품 / 원료 / 조제를 통과시키지 않아야 하고, 내구성이 있어야 한다.

테스트를 하지 않았기 때문에 제품 / 조제 / 화학 혼합물에 적합한 장갑재질에 대한 추천이 없다.

투과 시간, 침투율과 저하를 고려해서 장갑 재료를 선택한다.

· 장갑 의 재료

적합한 장갑의 선정은 재질 차이뿐만 아니라 품질 기준의 차이도 고려하여 이루어져야 하고 제조업종에 따라서도 다르게 선정되어야 한다. 제품은 다양한 재료로부터의 조제가 이루어지는 것이기 때문에, 장갑재질의 안정성은 사전에 예측되어질 수 있는 것이 아니고, 반드시 사용 전에 (그 안전성이) 체크되어야 한다.

· 장갑 재료의 투과 시간 정확한 관통 시간은 보호 장갑 제조자에 의하여 인지도되고, 준수되어야 한다.

(5 쪽에 계속)

물질안전보건자료 GHS에 따라라따

인쇄일자: 2020.04.01

개정: 2020.04.01

제품명: GRAY RESIN THERMOPLASTIC

보호 보호 보호

(4 쪽부터 계속)



꼭조이는보안경

9 물리화학적 특성

기본 물리화학적 특성에 대한 기본 정보

· 일반정보	
외형외형의형	단단한 물질
· 물리적 상태	흰색의
· 색:	부드러운
냄새 냄새 냄새	알맞지 않다.
· 후각역치	
· pH:	알맞지 않다.
· 상태변화	
· 녹는 점/어는 점:	맞지 않는
초기 초기 녹는 점과 끓는 점 범위	3,000 °C
· 인화점:	해당 사항 없음.
· 인화성 고체/기체/기체	해당 사항 없음.
· 점화 온도:	304 °C
분해 분해 온도	알맞지 않다.
· 자기점화:	이 제품은 자연발화성이 없다.
· 폭발 위험:	이 제품은 폭발 위험성이 없다
인화 안정성/폭발 위험성 상한선	하한
· 아래로:	알맞지 않다.
· 위로 위로 위로	알맞지 않다.
· 증기압:	알맞지 않다.
밀도 밀도 밀도	맞지 않는다.
비중 비중 비중	알맞지 않다.
· 증기 밀도:	알맞지 않다.
증발 증발 증발 속도	알맞지 않다.
· 용해도:	
· 물:	각각의 경우에 따라서는 거의 혼합할 수 없는
· n 옥탄올/물 분배계수:	알맞지 않다.
점도 점도 점도	
· 역학성:	알맞지 않다.
· 동점성:	알맞지 않다.
· 용매 내용물	
· VOC (EU)	0.00 %
· 고체 함량 함량	76.0 %

(6 쪽에 계속)

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(5 쪽부터 계속)

기타 정보 정보 추가적인 정보가 존재하지 않습니다.

10 안정성 및 반응성

- 반응성 추가적인 정보가 존재하지 않습니다.
- 화학적 안정성
- 화학적 안정성 유해 반응의 가능성 / 피해야 할 조건 규정 에 따라 사용 할 경우 해체는 없다
- 유해 반응 가능성 위험한 반응으로는 알려지지 않았다.
- 피해야 할 조건 추가적인 정보가 존재하지 않습니다.
- 혼합 유해 물질 추가적인 정보가 존재하지 않습니다.
- 유해 분해 물질: 위험성 있는 분해물들은 알려지지 않았다.

11 독성에 관한 정보

- 독성학적 영향에 대한 정보
- 급성 독성 독성
 - 입체적 자극 효과
- 피부 피부 자극성 또는 자극성: 피부와 점막을 자극한다.
- 심한 심한 자극성 또는 자극성: 자극
 - 감각화: 피부 접촉을 통하여 감각화 가능성이 있다.
- 추가적인 독성에 관한 정보
- 이제 품은 유럽 공동체의 공동 분류 원칙의 합법적인 절차에 근거하여 최근에 발효된 원고에서 아래 위험들의 사전 준비에 대하여 제시하고 있다.
- 독성의
 - 자극적인
 - 맹독성의
 - 피부유입시 위험

12 환경에 미치는 영향

- 독성 독성 독성
 - 수생 독성: 추가적인 정보가 존재하지 않습니다.
 - 지속성 및 분해성 추가적인 정보가 존재하지 않습니다.
 - 환경 시스템에서의 행동:
 - 생물 농축 잠재성 추가적인 정보가 존재하지 않습니다.
 - 토양 내 이동성 추가적인 정보가 존재하지 않습니다.
 - 추가적인 생태학 정보
- 일반 환경 영향 특징
 - 수질 오염 등급 1 (자체 등급 분류): 약하게 수질 오염이 된
 - 희석시키지 않은 채 대량으로 지하시수나, 하천으로 그리고 하수도망에 도달하지 않게 한다.
 - PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질)에 해당하지 않는다.
 - PBT(잔류성, 생물농축성, 독성 물질)에 해당 사항 없음.
 - vPvB(고 잔류성, 고 생물농축성 물질)에 해당 사항 없음.
- 기타 기타 추가적인 정보가 존재하지 않습니다.

13 폐기시 주의사항

- 폐기물 처리 방법
- 권고 권고 환경 쓰레기와 함께 처리되어서는 안 된다. 하수도망으로 유입되어서는 안 된다.

(7 쪽에 계속)

물질안전보건자료 GHS에 따라라다

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제품명: GRAY RESIN THERMOPLASTIC

(6 쪽부터계속)

· 비위생적 포장포장
권고 권고 권고 의지침에 입각한 쓰레기 처리.

14 운송에 필요한 정보

유엔 유엔 유엔 번호 · ADR, IMDG, IATA	UN2810
적정적정적정명 · ADR · IMDG, IATA	2810 TOXIC LIQUID, ORGANIC, N.O.S. (Poly(Methyl Methacrylate), iron) TOXIC LIQUID, ORGANIC, N.O.S. (Poly(Methyl Methacrylate), iron)
교통 교통 교통 위험 클래스 · ADR, IMDG, IATA	
	
등급 등급 등급 · 위험물 라벨라벨	6.1 독성물질 6.1
용기 등급 · ADR, IMDG, IATA	II
환경적 유해물질:	해당사항 없음.
이동 시 특별 예방 조치 위험 위험 위험 코드 · E 번호 번호 · Stowage Category · Stowage Code	경고: 독성물질 60 F-A,S-A B SW2 Clear of living quarters.
MARPOL 73/78 (선박으로부터의 해양오염방지협약) 부속서 2 및 IBC Code (국제 선적화물코드)에 따른 벌크 물질 운송 운송	해당사항 없음.
운송/ 추가 정보	
ADR 한정 양 (제한량) (수량) · Excepted quantities (EQ)	100 ml Code: E4 Maximum net quantity per inner packaging: 1 ml Maximum net quantity per outer packaging: 500 ml
운송 운송 운송 구분 터널 터널 터널 제한 코드	2 D/E
IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	100 ml Code: E4 Maximum net quantity per inner packaging: 1 ml Maximum net quantity per outer packaging: 500 ml

(8 쪽에계속)

물질안전보건자료 GHS에 따라라따

인쇄일자: 2020.04.01

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제품명: GRAY RESIN THERMOPLASTIC

(7 쪽부터계속)

· **UN번호** 2810

UN 2810 TOXIC LIQUID, ORGANIC, N.O.S.
(POLY(METHYL METHACRYLATE), IRON), 6.1, II

15 법적 규제현황

· **산업안전보건법에** 의해 규제

제조제조금지물질:

어떠한내용물도목록화되어있지않다

· **허가대상물질:**

어떠한내용물도목록화되어있지않다

· **관리대상유해물질:**

7439-89-6 iron

· **작업환경측정 대상 유해인자**

7782-42-5 Graphite

3A2

· **특수건강집중 대상 유해인자**

어떠한내용물도목록화되어있지않다

해당 해당 물질 또는 혼합물에는 대한 안전보건 규정 관련 법률

· **Korean Existing Chemical Inventory**

7439-89-6 iron

KE-21059

9011-14-7 Poly(Methyl Methacrylate)

KE-25051

7782-42-5 Graphite

KE-18101

94-36-0 과산화 벤조일

KE-09889

· **화학물질관리법**

· **사고대비물질**

어떠한내용물도목록화되어있지않다

· **금지물질**

어떠한내용물도목록화되어있지않다

· **제한물질**

어떠한내용물도목록화되어있지않다

· **유독물질**

94-36-0 과산화 벤조일

· **허가물질**

94-36-0 과산화 벤조일

· **위험물안전관리법 (위험물 및 지정수량) 제 5: 10 킬로그램**

등록 등록 대상 선제 대상 화학물질

어떠한내용물도목록화되어있지않다

· **‘21년까지 등록하여야 할 암, 돌연변이, 생식능력 이상을 일으키거나 일으킬 우려가 있는 기존 화학물질**

어떠한내용물도목록화되어있지않다

· **중점관리물질 지정 지정**

· **표1 중점관리물질(제한 관련 관련)**

어떠한내용물도목록화되어있지않다

(9 쪽에계속)

물질안전보건자료 GHS에 따라라따

인쇄일자: 2020.04.01

개정: 2020.04.01

제품명: GRAY RESIN THERMOPLASTIC

(8 쪽부터계속)

· 표2 중점관리물질(제한관련관련

어떠한내용물도목록화되어있지않다

· 라벨 라벨 요소

본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

· 그림 문자



GHS06 GHS08

· 신호어 위험

· 상표상에명확히위험성이표시된성분:

iron

Poly(Methyl Methacrylate)

과산화 벤조일

· 유해 유해 위험 문구

삼키거나 흡입하면 유독함.

피부와 접촉하면 치명적임

피부에 자극을 일으킴

눈에 심한 자극을 일으킴

알레르기성 피부 반응을 일으킬 수 있음

호흡 자극성을 일으킬 수 있음

장기간 또는 반복 노출되면 장기에 손상을 일으킬 수 있음

· 예방 조차 문구

삼켰을 시: 즉시 독성물질센터/병원 연락 필요.

(라벨 참조) 처치를 하시오.

입을 씻어내시오.

눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면 콘택트렌즈를 제거하십시오. 계속 씻으시오.

오염된 모든 의복은 즉시 벗고 다시 사용 전 세척하십시오.

밀봉하여 저장하십시오.

(지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기하십시오.

· 화학물질 안전성 평가 평가 화학물질 안전성 평가가 수행되지 않음

16 그 밖의 참고사항

이 보고는 우리 지식에 대한 오늘날의 상태에 대하여 평가하고 있다, 하지만 이 보고서는 생산 특성에 관한 보증은 기술하지 않았으며 계약적인 법률 관계에 기반을 두고 있지 않다

최초 최초 작성 일자: 2020.04.01

개정 개정 개정 최종 개정 일자: 1 / 2020.04.01

· 약어와 두문자어:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 01.04.2020

Revisión: 01.04.2020

SECCIÓN 1: Identificación de la sustancia o la mezcla y de la sociedad o la empresa

· 1.1 Identificador del producto

· **Nombre comercial:** GRAY RESIN THERMOPLASTIC

· **Número del artículo:** 1210

· 1.2 Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados

No existen más datos relevantes disponibles.

· **Utilización del producto / de la elaboración** Sustancias químicas de laboratorio

· 1.3 Datos del proveedor de la ficha de datos de seguridad

· **Fabricante/distribuidor:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: info@emsdiasum.com

www.emsdiasum.com

Aname

C/ Perez Galdos no. 2

28693 Quijorna

Madrid, Spain

Tel: +34.91.816.89.50

Fax: +34.91.816.85.94

email: ventas@aname.es

· **Área de información:** Product safety department

· 1.4 Teléfono de emergencia:

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

SECCIÓN 2: Identificación de los peligros

· 2.1 Clasificación de la sustancia o de la mezcla

· **Clasificación con arreglo al Reglamento (CE) n° 1272/2008**



GHS06 calavera y tibias cruzadas

Acute Tox. 3 H301 Tóxico en caso de ingestión.

Acute Tox. 3 H311 Tóxico en contacto con la piel.



GHS08 peligro para la salud

STOT RE 2 H373 Puede provocar daños en los órganos tras exposiciones prolongadas o repetidas.



GHS07

Acute Tox. 4 H332 Nocivo en caso de inhalación.

Skin Irrit. 2 H315 Provoca irritación cutánea.

Eye Irrit. 2 H319 Provoca irritación ocular grave.

Skin Sens. 1 H317 Puede provocar una reacción alérgica en la piel.

STOT SE 3 H335 Puede irritar las vías respiratorias.

(se continua en página 2)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 01.04.2020

Revisión: 01.04.2020

Nombre comercial: GRAY RESIN THERMOPLASTIC

(se continua en página 1)

· 2.2 Elementos de la etiqueta

· Etiquetado con arreglo al Reglamento (CE) n° 1272/2008

El producto se ha clasificado y etiquetado de conformidad con el reglamento CLP.

· Pictogramas de peligro



GHS06 GHS08

· Palabra de advertencia Peligro

· Componentes peligrosos a indicar en el etiquetaje:

hierro

Poly(Methyl Methacrylate)

grafito

peróxido de dibenzoilo

· Indicaciones de peligro

H301+H311 Tóxico en caso de ingestión o en contacto con la piel.

H332 Nocivo en caso de inhalación.

H315 Provoca irritación cutánea.

H319 Provoca irritación ocular grave.

H317 Puede provocar una reacción alérgica en la piel.

H335 Puede irritar las vías respiratorias.

H373 Puede provocar daños en los órganos tras exposiciones prolongadas o repetidas.

· Consejos de prudencia

P301+P310 EN CASO DE INGESTIÓN: Llamar inmediatamente a un CENTRO DE TOXICOLOGÍA/médico.

P321 Se necesita un tratamiento específico (ver en esta etiqueta).

P330 Enjuagarse la boca.

P305+P351+P338 EN CASO DE CONTACTO CON LOS OJOS: Enjuagar con agua cuidadosamente durante varios minutos. Quitar las lentes de contacto cuando estén presentes y pueda hacerse con facilidad. Proseguir con el lavado.

P361+P364 Quitar inmediatamente todas las prendas contaminadas y lavarlas antes de volver a usarlas.

P405 Guardar bajo llave.

P501 Eliminar el contenido o el recipiente conforme a la reglamentación local/regional/nacional/internacional.

· 2.3 Otros peligros

· Resultados de la valoración PBT y mPmB

· PBT: No aplicable.

· mPmB: No aplicable.

SECCIÓN 3: Composición/información sobre los componentes

· 3.2 Caracterización química: Mezclas

· Descripción: Mezcla formada por las sustancias especificadas a continuación con adiciones no peligrosas.

· Componentes peligrosos:

CAS: 7439-89-6	hierro	>25-≤50%
EINECS: 231-096-4	☠ Acute Tox. 2, H300; ☠ STOT RE 2, H373; ☠ Skin Irrit. 2, H315	
CAS: 9011-14-7	Poly(Methyl Methacrylate)	>25-≤50%
	☠ Acute Tox. 3, H311; ☠ Acute Tox. 4, H302; ☠ Skin Irrit. 2, H315; ☠ Eye Irrit. 2, H319; STOT SE 3, H335	

(se continua en página 3)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 01.04.2020

Revisión: 01.04.2020

Nombre comercial: GRAY RESIN THERMOPLASTIC

(se continua en página 2)

CAS: 7782-42-5 EINECS: 231-955-3	grafito ! Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	>10-≤25%
CAS: 94-36-0 EINECS: 202-327-6	peróxido de dibenzoil Org. Perox. B, H241; Eye Irrit. 2, H319; Skin Sens. 1, H317	≤2,5%

· **Indicaciones adicionales:** El texto de los posibles riesgos aquí indicados se puede consultar en el capítulo 16.

SECCIÓN 4: Primeros auxilios

· 4.1 Descripción de los primeros auxilios

· Instrucciones generales:

Quitarse de inmediato toda prenda contaminada con el producto.

Los síntomas de intoxicación pueden presentarse después de muchas horas, por lo que se requiere una supervisión médica durante un mínimo de 48 horas después del accidente.

Antes de quitarse la protección respiratoria, quítese la ropa contaminada.

En caso de respiración irregular o apnea (paro respiratorio), hágase la respiración artificial.

· En caso de inhalación del producto:

Suministrar aire fresco u oxígeno; solicitar ayuda médica.

Las personas desmayadas deben tenderse y transportarse de lado con la suficiente estabilidad.

· En caso de contacto con la piel: Lavar inmediatamente con agua y jabón y enjuagar bien.

· En caso de con los ojos:

Limpia los ojos abiertos durante varios minutos con agua corriente. En caso de trastornos persistentes consultar un médico.

· En caso de ingestión: No provocar el vómito y solicitar asistencia médica inmediata.

· 4.2 Principales síntomas y efectos, agudos y retardados No existen más datos relevantes disponibles.

· 4.3 Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente No existen más datos relevantes disponibles.

SECCIÓN 5: Medidas de lucha contra incendios

· 5.1 Medios de extinción

· **Sustancias extintoras apropiadas:** Combatir los incendios con medidas adaptados al ambiente circundante.

· 5.2 Peligros específicos derivados de la sustancia o la mezcla No existen más datos relevantes disponibles.

· 5.3 Recomendaciones para el personal de lucha contra incendios

· **Equipo especial de protección:** Colocarse la protección respiratoria.

SECCIÓN 6: Medidas en caso de vertido accidental

· 6.1 Precauciones personales, equipo de protección y procedimientos de emergencia No es necesario.

· 6.2 Precauciones relativas al medio ambiente:

Evitar que penetre en la canalización /aguas de superficie /agua subterráneas.

· 6.3 Métodos y material de contención y de limpieza:

Quitar con material absorbente (arena, kieselgur, aglutinante de ácidos, aglutinante universal, aserrín).

Desechar el material contaminado como vertido según item 13.

Asegurar suficiente ventilación.

· 6.4 Referencia a otras secciones

Ver capítulo 7 para mayor información sobre una manipulación segura.

Ver capítulo 8 para mayor información sobre el equipo personal de protección.

(se continua en página 4)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 01.04.2020

Revisión: 01.04.2020

Nombre comercial: GRAY RESIN THERMOPLASTIC

(se continua en página 3)

Para mayor información sobre cómo desechar el producto, ver capítulo 13.

SECCIÓN 7: Manipulación y almacenamiento

- **7.1 Precauciones para una manipulación segura**
*Asegurar suficiente ventilación /aspiración en el puesto de trabajo.
 Abrir y manejar el recipiente con cuidado.
 Evitar la formación de aerosoles.*
- **Prevención de incendios y explosiones:** *Tener preparados los aparatos respiratorios.*
- **7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**
- **Almacenamiento:**
- **Exigencias con respecto al almacén y los recipientes:** *No se requieren medidas especiales.*
- **Normas en caso de un almacenamiento conjunto:** *No es necesario.*
- **Indicaciones adicionales sobre las condiciones de almacenamiento:**
Mantener el recipiente cerrado herméticamente.
- **7.3 Usos específicos finales** *No existen más datos relevantes disponibles.*

SECCIÓN 8: Controles de exposición/protección individual

- **Instrucciones adicionales para el acondicionamiento de instalaciones técnicas:**
Sin datos adicionales, ver punto 7.
- **8.1 Parámetros de control**
- **Componentes con valores límite admisibles que deben controlarse en el puesto de trabajo:**
El producto no contiene cantidades relevantes de sustancias con valores límite que exijan un control en el puesto de trabajo.
- **Indicaciones adicionales:** *Como base se han utilizado las listas vigentes en el momento de la elaboración.*
- **8.2 Controles de la exposición**
- **Equipo de protección individual:**
- **Medidas generales de protección e higiene:**
*Mantener alejado de alimentos, bebidas y alimentos para animales.
 Quitarse de inmediato la ropa ensuciada o impregnada.
 Lavarse las manos antes de las pausas y al final del trabajo.
 Guardar la ropa protectora por separado.
 Evitar el contacto con los ojos y la piel.*
- **Protección respiratoria:**
Si la exposición va a ser breve o de poca intensidad, colocarse una máscara respiratoria. Para una exposición más intensa o de mayor duración, usar un aparato de respiración autónomo.
- **Protección de manos:**



Guantes de protección

- *El material del guante deberá ser impermeable y resistente al producto / sustancia / preparado.
 Ante la ausencia de tests específicos, no se puede recomendar ningún material específico para guantes de protección contra el producto / preparado / mezcla de sustancias químicas.
 Selección del material de los guantes en función de los tiempos de rotura, grado de permeabilidad y degradación.*
- **Material de los guantes**
La elección del guante adecuado no depende únicamente del material, sino también de otras características de calidad, que pueden variar de un fabricante a otro. Teniendo en cuenta que el producto está fabricado a partir de diferentes materiales, su calidad no puede ser evaluada de antemano, de modo que los guantes deberán ser controlados antes de su utilización.

(se continua en página 5)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 01.04.2020

Revisión: 01.04.2020

Nombre comercial: GRAY RESIN THERMOPLASTIC

(se continua en página 4)

- **Tiempo de penetración del material de los guantes**
El tiempo de resistencia a la penetración exacto deberá ser pedido al fabricante de los guantes. Este tiempo debe ser respetado.
- **Protección de ojos:**



Gafas de protección herméticas

SECCIÓN 9: Propiedades físicas y químicas

· 9.1 Información sobre propiedades físicas y químicas básicas

· Datos generales

· Aspecto:

Forma: Substancia sólida

Color: Gris

· **Olor:** Suave

· **Umbral olfativo:** No determinado.

· **valor pH:** No determinado.

· Cambio de estado

Punto de fusión/punto de congelación: Indeterminado.

Punto inicial de ebullición e intervalo de ebullición: 3.000 °C

· **Punto de inflamación:** No aplicable.

· **Inflamabilidad (sólido, gas):** No aplicable.

· **Temperatura de ignición:** 304 °C

· **Temperatura de descomposición:** No determinado.

· **Temperatura de auto-inflamación:** El producto no es autoinflamable.

· **Propiedades explosivas:** El producto no es explosivo.

· Límites de explosión:

Inferior: No determinado.

Superior: No determinado.

· **Presión de vapor:** No determinado.

· **Densidad:** Indeterminado.

· **Densidad relativa** No determinado.

· **Densidad de vapor** No determinado.

· **Tasa de evaporación:** No determinado.

· Solubilidad en / miscibilidad con agua:

Poco o no mezclable.

· **Coefficiente de reparto: n-octanol/agua:** No determinado.

· Viscosidad:

Dinámica: No determinado.

Cinemática: No determinado.

· Concentración del disolvente:

VOC (CE) 0,00 %

(se continua en página 6)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 01.04.2020

Revisión: 01.04.2020

Nombre comercial: GRAY RESIN THERMOPLASTIC

(se continua en página 5)

Contenido de cuerpos sólidos:	76,0 %
· 9.2 Otros datos	No existen más datos relevantes disponibles.

SECCIÓN 10: Estabilidad y reactividad

- **10.1 Reactividad** No existen más datos relevantes disponibles.
- **10.2 Estabilidad química**
- **Descomposición térmica / condiciones que deben evitarse:** No se descompone al emplearse adecuadamente.
- **10.3 Posibilidad de reacciones peligrosas** No se conocen reacciones peligrosas.
- **10.4 Condiciones que deben evitarse** No existen más datos relevantes disponibles.
- **10.5 Materiales incompatibles:** No existen más datos relevantes disponibles.
- **10.6 Productos de descomposición peligrosos:** No se conocen productos de descomposición peligrosos.

SECCIÓN 11: Información toxicológica

- **11.1 Información sobre los efectos toxicológicos**
- **Toxicidad aguda**
Tóxico en caso de ingestión o en contacto con la piel.
Nocivo en caso de inhalación.
- **Efecto estimulante primario:**
- **Corrosión o irritación cutáneas**
Provoca irritación cutánea.
- **Lesiones o irritación ocular graves**
Provoca irritación ocular grave.
- **Sensibilización respiratoria o cutánea**
Puede provocar una reacción alérgica en la piel.
- **Efectos CMR (carcinogenicidad, mutagenicidad y toxicidad para la reproducción)**
- **Mutagenicidad en células germinales**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Carcinogenicidad** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad para la reproducción** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad específica en determinados órganos (STOT) – exposición única**
Puede irritar las vías respiratorias.
- **Toxicidad específica en determinados órganos (STOT) – exposición repetida**
Puede provocar daños en los órganos tras exposiciones prolongadas o repetidas.
- **Peligro de aspiración** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

SECCIÓN 12: Información ecológica

- **12.1 Toxicidad**
- **Toxicidad acuática:** No existen más datos relevantes disponibles.
- **12.2 Persistencia y degradabilidad** No existen más datos relevantes disponibles.
- **12.3 Potencial de bioacumulación** No existen más datos relevantes disponibles.
- **12.4 Movilidad en el suelo** No existen más datos relevantes disponibles.
- **Indicaciones medioambientales adicionales:**
- **Indicaciones generales:**
Nivel de riesgo para el agua 1 (autoclasificación): escasamente peligroso para el agua
En estado no diluido o no neutralizado, no dejar que se infiltre en aguas subterráneas, aguas superficiales o en alcantarillados.

(se continua en página 7)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 01.04.2020

Revisión: 01.04.2020

Nombre comercial: GRAY RESIN THERMOPLASTIC


(se continua en página 6)

- **12.5 Resultados de la valoración PBT y mPmB**
- **PBT:** No aplicable.
- **mPmB:** No aplicable.
- **12.6 Otros efectos adversos** No existen más datos relevantes disponibles.

SECCIÓN 13: Consideraciones relativas a la eliminación

- **13.1 Métodos para el tratamiento de residuos**
- **Recomendación:** No debe desecharse con la basura doméstica. No debe llegar al alcantarillado.
- **Embalajes sin limpiar:**
- **Recomendación:** Eliminar conforme a las disposiciones oficiales.

SECCIÓN 14: Información relativa al transporte

- | | |
|--|---|
| · 14.1 Número ONU
· ADR, IMDG, IATA | UN2810 |
| · 14.2 Designación oficial de transporte de las Naciones Unidas
· ADR
· IMDG, IATA | 2810 LÍQUIDO TÓXICO, ORGÁNICO, N.E.P.
(Poly(Methyl Methacrylate), hierro)
TOXIC LIQUID, ORGANIC, N.O.S. (Poly(Methyl Methacrylate), iron) |
| · 14.3 Clase(s) de peligro para el transporte
· ADR, IMDG, IATA | |
|  | |
| · Clase
· Etiqueta | 6.1 Materias tóxicas
6.1 |
| · 14.4 Grupo de embalaje
· ADR, IMDG, IATA | II |
| · 14.5 Peligros para el medio ambiente: | No aplicable. |
| · 14.6 Precauciones particulares para los usuarios
· Número de identificación de peligro (Número Kemler):
· Número EMS:
· Stowage Category
· Stowage Code | Atención: Materias tóxicas
60
F-A,S-A
B
SW2 Clear of living quarters. |
| · 14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y el Código IBC | No aplicable. |
| · Transporte/datos adicionales: | |
| · ADR
· Cantidades limitadas (LQ)
· Cantidades exceptuadas (EQ) | 100 ml
Código: E4
Cantidad neta máxima por envase interior: 1 ml
Cantidad neta máxima por embalaje exterior: 500 ml |

(se continua en página 8)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 01.04.2020

Revisión: 01.04.2020

Nombre comercial: GRAY RESIN THERMOPLASTIC

(se continua en página 7)

· Categoría de transporte	2
· Código de restricción del túnel	D/E
<hr/>	
· IMDG	
· Limited quantities (LQ)	100 ml
· Excepted quantities (EQ)	Code: E4
	Maximum net quantity per inner packaging: 1 ml
	Maximum net quantity per outer packaging: 500 ml
· "Reglamentación Modelo" de la UNECE:	UN 2810 LÍQUIDO TÓXICO, ORGÁNICO, N.E.P. (POLY(METHYL METHACRYLATE), HIERRO), 6.1, II

SECCIÓN 15: Información reglamentaria

- **15.1 Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla**
- **Directiva 2012/18/UE**
- **Sustancias peligrosas nominadas - ANEXO I** ninguno de los componentes está incluido en una lista
- **REGLAMENTO (CE) n° 1907/2006 ANEXO XVII Restricciones:** 3
- **15.2 Evaluación de la seguridad química:** Una evaluación de la seguridad química no se ha llevado a cabo.

SECCIÓN 16: Otra información

Los datos se fundan en el estado actual de nuestros conocimientos, pero no constituyen garantía alguna de cualidades del producto y no generan ninguna relación jurídica contractual.

· Frases relevantes

- H241 Peligro de incendio o explosión en caso de calentamiento.
- H300 Mortal en caso de ingestión.
- H302 Nocivo en caso de ingestión.
- H311 Tóxico en contacto con la piel.
- H312 Nocivo en contacto con la piel.
- H315 Provoca irritación cutánea.
- H317 Puede provocar una reacción alérgica en la piel.
- H319 Provoca irritación ocular grave.
- H332 Nocivo en caso de inhalación.
- H335 Puede irritar las vías respiratorias.
- H373 Puede provocar daños en los órganos tras exposiciones prolongadas o repetidas.

· Abreviaturas y acrónimos:

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- VOC: Volatile Organic Compounds (USA, EU)
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Org. Perox. B: Peróxidos orgánicos – Tipo B
- Acute Tox. 2: Toxicidad aguda - oral – Categoría 2
- Acute Tox. 4: Toxicidad aguda - oral – Categoría 4
- Acute Tox. 3: Toxicidad aguda - cutánea – Categoría 3
- Skin Irrit. 2: Corrosión o irritación cutáneas – Categoría 2
- Eye Irrit. 2: Lesiones oculares graves o irritación ocular – Categoría 2

(se continua en página 9)

Ficha de datos de seguridad
según 1907/2006/CE, Artículo 31

fecha de impresión 01.04.2020

Revisión: 01.04.2020

Nombre comercial: GRAY RESIN THERMOPLASTIC

Skin Sens. 1: Sensibilización cutánea – Categoría 1

STOT SE 3: Toxicidad específica en determinados órganos (exposición única) – Categoría 3

STOT RE 2: Toxicidad específica en determinados órganos (exposiciones repetidas) – Categoría 2

(se continua en página 8)

ES