

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

F 645 IL-89 M30 SP, 0,5 KG, JAR

Version	Revision Date:	Date of last issue: 30.06.2026
1.1	09.07.2026	Date of first issue: 30.06.2026

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

1.1 Product identifier

Trade name	:	F 645 IL-89 M30 SP, 0,5 KG, JAR
Product code	:	81165239
Unique Formula Identifier (UFI)	:	52DA-P0TM-500C-2MFU

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Sub-stance/Mixture	:	Industrial use
Recommended restrictions on use	:	For industrial use only.

1.3 Details of the supplier of the safety data sheet

Company	:	Heraeus Precious Metals GmbH & Co. KG Heraeusstrasse 12-14 63450 Hanau
Telephone	:	+496181350
E-mail address of person responsible for the SDS	:	sds@heraeus.com (Heraeus Business Solutions GmbH: EHS Chemical Safety)

1.4 Emergency telephone number

Emergency telephone number	:	+49 6132-84463 International Emergency Number This telephone number is available 24 hours per day, 7 days per week.
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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Serious eye damage, Category 1	H318: Causes serious eye damage.
Reproductive toxicity, Category 2	H361f: Suspected of damaging fertility. (Causing

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Long-term (chronic) aquatic hazard, Category 3

atrophy of the testes)
H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements : H318 Causes serious eye damage.
H361f Suspected of damaging fertility. (Causing atrophy of the testes)
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**

P201 Obtain special instructions before use.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Response:

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

2-(2-Hexyloxyethoxy)ethanol
silver massive: [particle diameter ≥ 1 mm]

Additional Labelling

EUH208 Contains Nickel. May produce an allergic reaction.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : inorganic

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Complex mixture of Chinese gum rosin post reacted with acrylic acid	144413-22-9 434-230-1 607-682-00-4 01-2120117087-62-XXXX	Aquatic Chronic 4; H413	≥ 2,5 - < 10
2-(2-Hexyloxyethoxy)ethanol	112-59-4 203-988-3 603-175-00-7 01-2119945815-28-XXXX	Acute Tox. 4; H312 Eye Dam. 1; H318 Acute toxicity estimate Acute dermal toxicity: 1.400 mg/kg	≥ 3 - < 10
silver massive: [particle diameter ≥ 1 mm]	7440-22-4 231-131-3 047-004-00-9 01-2119555669-21-XXXX	Repr. 2; H361f STOT RE 2; H373 (Nervous system)	≥ 3 - < 10
Copper metal powder	7440-50-8 231-159-6 029-026-00-0 01-2119480154-42-	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	≥ 0,25 - < 1

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	XXXX	M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1	
Bis(2-ethylhexyl)amine	106-20-7 203-372-4	Acute Tox. 4; H302 Acute Tox. 3; H331 Acute Tox. 3; H311 Skin Corr. 1B; H314 Eye Dam. 1; H318 STOT SE 3; H335 Aquatic Chronic 1; H410 M-Factor (Chronic aquatic toxicity): 1 Acute toxicity estimate Acute oral toxicity: 847 mg/kg Acute inhalation toxicity (dust/mist): 0,91 mg/l Acute dermal toxicity: 958 mg/kg	≥ 0,1 - < 0,25
Amines, (hydrogenated tallow alkyl)dimethyl	61788-95-2 263-022-1	Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 EUH071 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1	≥ 0,1 - < 0,25
Nickel	7440-02-0 231-111-4 028-002-01-4 01-2119438727-29-	Skin Sens. 1; H317 Carc. 2; H351 STOT RE 1; H372 (Respiratory Tract) Aquatic Chronic 3;	≥ 0,1 - < 0,25

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	XXXX	H412	
Antimony ($\varnothing \leq 10 \mu\text{m}$)	7440-36-0 231-146-5 051-003-00-9	Acute Tox. 4; H302 Acute Tox. 4; H332 Carc. 2; H351 STOT RE 2; H373 (Lungs) Aquatic Chronic 2; H411 Acute toxicity estimate Acute oral toxicity: 2.000 mg/kg Acute inhalation toxicity (dust/mist): 5 mg/l	$\geq 0,1 - < 0,25$
Substances with a workplace exposure limit :			
Tin	7440-31-5 231-141-8 01-2119486474-28-XXXX		$\geq 70 - < 90$
Antimony ($\varnothing > 10 \mu\text{m}$)	7440-36-0 231-146-5 051-003-00-9		$\geq 1 - < 10$

The registration numbers listed here are valid if the company listed in Chapter 1 is located in the EU. For ingredients without a registration number there is no registration, because due to the annual amount no registration is required or the substance or its use according to Article 2 of the REACH Regulation (EC 1907/2006) is excluded from registration.

For explanation of abbreviations see section 16.

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SECTION 4: First aid measures

4.1 Description of first aid measures

- | | | |
|-------------------------|---|---|
| General advice | : | First aider needs to protect himself.
Move out of dangerous area.
Show this safety data sheet to the doctor in attendance. |
| If inhaled | : | Move to fresh air.
If breathing is irregular or stopped, administer artificial respiration.
Get medical attention. |
| In case of skin contact | : | Take off all contaminated clothing immediately.
Obtain medical attention.
Wash off with soap and plenty of water. |
| In case of eye contact | : | In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Keep eye wide open while rinsing.
Protect unharmed eye.
Call a physician immediately. |
| If swallowed | : | Immediately give large quantities of water to drink.
Do NOT induce vomiting.
Get medical attention. |

4.2 Most important symptoms and effects, both acute and delayed

- | | | |
|-------|---|--|
| Risks | : | Causes serious eye damage.
Suspected of damaging fertility. (Causing atrophy of the testes) |
|-------|---|--|

4.3 Indication of any immediate medical attention and special treatment needed

- | | | |
|-----------|---|------------------------|
| Treatment | : | Treat symptomatically. |
|-----------|---|------------------------|

SECTION 5: Firefighting measures

5.1 Extinguishing media

- | | | |
|------------------------------|---|---|
| Suitable extinguishing media | : | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
|------------------------------|---|---|

5.2 Special hazards arising from the substance or mixture

- | | | |
|-------------------------------|---|---|
| Specific hazards during fire- | : | Exposure to decomposition products may be a hazard to |
|-------------------------------|---|---|

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fighting

health.

Hazardous combustion products : Metal oxides
Carbon oxides
Nitrogen oxides (NOx)

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

Further information : Use a water spray to cool fully closed containers.
Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Follow safe handling advice and personal protective equipment recommendations.
Ensure adequate ventilation.
Evacuate personnel to safe areas.
Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Environmental precautions : Do not allow contact with soil, surface or ground water.
Do not let product enter drains.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Sweep up or vacuum up spillage and collect in suitable container for disposal.

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

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- Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms. Wear personal protective equipment. Avoid inhalation, ingestion and contact with skin and eyes. Smoking, eating and drinking should be prohibited in the application area.
- Hygiene measures : Keep away from food and drink. Wash hands before breaks and at the end of workday. Keep working clothes separately. Remove and wash contaminated clothing and gloves, including the inside, before re-use.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Keep tightly closed in a dry, cool and well-ventilated place. Keep locked up or in an area accessible only to qualified or authorised persons.

7.3 Specific end use(s)

- Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
silver massive: [particle diameter $\geq$ 1 mm]	7440-22-4	TWA	0,1 mg/m ³	2000/39/EC
	Further information: Indicative			
		VME	0,1 mg/m ³	FR VLE
	Further information: Regulatory indicative exposure limits			
		TWA	0,01 mg/m ³ (Silver)	2006/15/EC
	Further information: Indicative			
Copper metal powder	7440-50-8	VME (Fumes)	0,2 mg/m ³ (Copper)	FR VLE
	Further information: Permissible limit values (circular)			
		VME (Dust)	1 mg/m ³ (Copper)	FR VLE
	Further information: Permissible limit values (circular)			
		VLCT (VLE) (Dust)	2 mg/m ³ (Copper)	FR VLE
	Further information: Permissible limit values (circular)			
Nickel	7440-02-0	VME	1 mg/m ³	FR VLE
	Further information: Carcinogenic category 2 - Possibly carcinogenic to hu-			

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	mans, Permissible limit values (circular)			
		TWA (Respirable dust)	0,01 mg/m3	2004/37/EC
	Further information: dermal and respiratory sensitisation, Carcinogens or mutagens			
		TWA (inhalable fraction)	0,05 mg/m3	2004/37/EC
	Further information: dermal and respiratory sensitisation, Carcinogens or mutagens			
Antimony (Ø ≤ 10 µm)	7440-36-0	VME	0,5 mg/m3 (antimony)	FR VLE
	Further information: Some or all its substances are classified C1A, C1B or C2, Permissible limit values (circular)			

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006

Substance name	End Use	Exposure routes	Potential health effects	Value
2-(2-Hexyloxyethoxy)ethanol	Workers	Inhalation	Long-term systemic effects	16,3 mg/m3
	Workers	Skin contact	Long-term systemic effects	50 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	4,1 mg/m3
	Consumers	Skin contact	Long-term systemic effects	25 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	1,25 mg/kg bw/day
silver massive: [particle diameter ≥ 1 mm]	Consumers	Ingestion	Long-term systemic effects	0,11 mg/kg bw/day
Copper metal powder	Workers	Skin contact	Long-term systemic effects	137 mg/kg bw/day
	Workers	Skin contact	Acute systemic effects	273 mg/kg bw/day
	Consumers	Skin contact	Long-term systemic effects	137 mg/kg bw/day
	Consumers	Skin contact	Acute systemic effects	273 mg/kg bw/day
Bis(2-ethylhexyl)amine	Workers	Inhalation	Long-term systemic effects	1,76 mg/m3
	Workers	Skin contact	Long-term systemic effects	0,25 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	0,435 mg/m3
	Consumers	Skin contact	Long-term systemic effects	0,125 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic	0,125 mg/kg

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			effects	bw/day
Nickel	Workers	Inhalation	Long-term systemic effects	0,05 mg/m3
	Workers	Inhalation	Acute systemic effects	680 mg/m3
	Workers	Inhalation	Long-term local effects	0,05 mg/m3
	Workers	Inhalation	Acute local effects	4 mg/m3
	Workers	Skin contact	Long-term local effects	0,07 mg/cm2
	Consumers	Inhalation	Long-term systemic effects	0,02 µg/m3
	Consumers	Inhalation	Acute systemic effects	408 mg/m3
	Consumers	Inhalation	Long-term local effects	0,02 µg/m3
	Consumers	Inhalation	Acute local effects	2,4 mg/m3
	Consumers	Skin contact	Long-term local effects	0,07 mg/cm2
	Consumers	Ingestion	Long-term systemic effects	0,02 mg/kg bw/day
	Consumers	Ingestion	Acute systemic effects	0,012 mg/kg bw/day
Antimony (Ø ≤ 10 µm)	Workers	Inhalation	Long-term local effects	0,5 mg/m3
	Workers	Skin contact	Long-term systemic effects	234,7 mg/kg bw/day
	Consumers	Inhalation	Long-term local effects	0,1 mg/m3
	Consumers	Skin contact	Long-term systemic effects	140,8 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	140,8 mg/kg bw/day

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006

Substance name	Environmental Compartment	Value
2-(2-Hexyloxyethoxy)ethanol	Fresh water	1,963 mg/l
	Freshwater - intermittent	1 mg/l
	Marine water	0,196 mg/l
	Sewage treatment plant	10 mg/l
	Fresh water sediment	10,7 mg/kg dry weight (d.w.)
	Marine sediment	1,07 mg/kg dry weight (d.w.)
	Soil	0,995 mg/kg dry weight (d.w.)
Copper metal powder	Fresh water	6,3 µg/l

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	Marine water	5,2 µg/l
	Sewage treatment plant	230 µg/l
	Fresh water sediment	87 mg/kg dry weight (d.w.)
	Marine sediment	676 mg/kg dry weight (d.w.)
	Soil	65 mg/kg dry weight (d.w.)
Bis(2-ethylhexyl)amine	Fresh water	1,38 µg/l
	Freshwater - intermittent	15,5 µg/l
	Marine water	0,138 µg/l
	Sewage treatment plant	1,8 mg/l
	Fresh water sediment	43,6 mg/kg dry weight (d.w.)
	Marine sediment	4,36 mg/kg dry weight (d.w.)
	Soil	0,2 mg/kg dry weight (d.w.)
Antimony (Ø ≤ 10 µm)	Fresh water	0,113 mg/l
	Marine water	0,0113 mg/l
	Sewage treatment plant	2,55 mg/l
	Fresh water sediment	11,2 mg/kg
	Marine sediment	2,24 mg/kg
	Soil	37 mg/kg

8.2 Exposure controls

Engineering measures

Provide sufficient air exchange and/or exhaust in work rooms.

Personal protective equipment

Eye/face protection : Safety glasses with side-shields
Hand protection

Remarks : Before removing gloves clean them with soap and water. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. As the product is a mixture of several substances, the durability of the glove materials cannot be calculated in advance and has to be tested before use.

Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

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Respiratory protection : No personal respiratory protective equipment normally required.
Filter type : Recommended Filter type:
Filter type ABEK-P

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : liquid (20 °C, 1.013 hPa)

Form : paste

Colour : grey

Odour : characteristic

Odour Threshold : No data available

Melting point/ range : No data available

Boiling point/boiling range : 2.362 °C (1.013 hPa)

Flammability : Not applicable

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Flash point : > 100 °C(1.013 hPa)

Auto-ignition temperature : No data available

Decomposition temperature : No data available

pH : substance/mixture is non-soluble (in water)

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : > 40 mm²/s (23 °C)
> 20,5 mm²/s (40 °C)

Solubility(ies)

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Water solubility : (20 °C, 1,013 hPa)
insoluble

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Vapour pressure : ≤ 1.100 hPa (50 °C)

Relative density : No data available

Density : 4,478 g/cm³ (23 °C, 1.013 hPa)

Relative vapour density : No data available

Particle characteristics
Particle size : Not applicable

9.2 Other information

Explosives : Not applicable

Oxidizing properties : Not applicable

Self-ignition : Not applicable

Evaporation rate : No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : No data available

10.5 Incompatible materials

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Materials to avoid : No data available

10.6 Hazardous decomposition products

No data available

No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Not classified due to lack of data.

Product:

Acute inhalation toxicity : Acute toxicity estimate: > 5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 2.000 mg/kg
Method: Calculation method

Components:

Complex mixture of Chinese gum rosin post reacted with acrylic acid:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 423

2-(2-Hexyloxyethoxy)ethanol:

Acute oral toxicity : LD50 (Rat): 3.488 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 1,2 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): 1.400 mg/kg

silver massive: [particle diameter $\geq$ 1 mm]:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 423
Assessment: The substance or mixture has no acute oral toxicity

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg

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Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal toxicity

Copper metal powder:

Acute oral toxicity : LD50 (Rat, male): > 2.000 mg/kg
Method: OECD Test Guideline 423
Remarks: The test was conducted according to guideline
Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat): > 5,11 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 436
Remarks: The test was conducted according to guideline

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: The test was conducted according to guideline

Bis(2-ethylhexyl)amine:

Acute oral toxicity : LD50 (Rat, female): 847 mg/kg

Acute inhalation toxicity : LC50 (Rat): 0,91 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): 958 mg/kg

Amines, (hydrogenated tallow alkyl)dimethyl:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 401
Remarks: Based on data from similar materials

Acute inhalation toxicity : Assessment: Corrosive to the respiratory tract.

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg
Remarks: Based on data from similar materials

Nickel:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 401

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Acute inhalation toxicity : LC0 (Rat): 10,2 mg/l
Exposure time: 1 h
Test atmosphere: dust/mist

Antimony ($\varnothing \leq 10 \mu\text{m}$):

Acute oral toxicity : Acute toxicity estimate: 2.000 mg/kg
Method: Expert judgement
Remarks: Based on national or regional regulation.

Acute inhalation toxicity : Acute toxicity estimate: 5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Expert judgement
Remarks: Based on national or regional regulation.

Acute dermal toxicity : LD50 (Rabbit): > 8.300 mg/kg
Remarks: Based on data from similar materials

Tin:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50 (Rat): > 4,75 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

Antimony ($\varnothing > 10 \mu\text{m}$):

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg
Remarks: Based on data from similar materials

Skin corrosion/irritation

Not classified due to lack of data.

Components:

Complex mixture of Chinese gum rosin post reacted with acrylic acid:

Species : Rabbit
Method : OECD Test Guideline 404

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Result : No skin irritation

2-(2-Hexyloxyethoxy)ethanol:

Species : Rabbit
Result : No skin irritation

silver massive: [particle diameter ≥ 1 mm]:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

Copper metal powder:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

Bis(2-ethylhexyl)amine:

Species : Rabbit
Result : Corrosive after 3 minutes to 1 hour of exposure

Amines, (hydrogenated tallow alkyl)dimethyl:

Species : in vitro membrane barrier
Method : OECD Test Guideline 435
Result : Not corrosive

Result : Skin irritation

Nickel:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

Antimony ($\emptyset \leq 10 \mu\text{m}$):

Species : Rabbit
Result : No skin irritation
Remarks : Based on data from similar materials

Tin:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

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Antimony ($\varnothing > 10 \mu\text{m}$):

Species	:	Rabbit
Result	:	No skin irritation
Remarks	:	Based on data from similar materials

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

Complex mixture of Chinese gum rosin post reacted with acrylic acid:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	No eye irritation

2-(2-Hexyloxyethoxy)ethanol:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	Irreversible effects on the eye

silver massive: [particle diameter $\geq 1 \text{ mm}$]:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	No eye irritation

Copper metal powder:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	No eye irritation
Remarks	:	The test was conducted according to guideline Based on data from similar materials

Bis(2-ethylhexyl)amine:

Species	:	Rabbit
Result	:	Irreversible effects on the eye

Amines, (hydrogenated tallow alkyl)dimethyl:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	Irreversible effects on the eye
Remarks	:	Based on data from similar materials

Nickel:

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Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	No eye irritation
Remarks	:	Based on data from similar materials

Antimony ($\varnothing \leq 10 \mu\text{m}$):

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	No eye irritation
Remarks	:	Based on data from similar materials

Tin:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	No eye irritation

Antimony ($\varnothing > 10 \mu\text{m}$):

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	No eye irritation
Remarks	:	Based on data from similar materials

Respiratory or skin sensitisation

Skin sensitisation

Not classified due to lack of data.

Respiratory sensitisation

Not classified due to lack of data.

Components:

Complex mixture of Chinese gum rosin post reacted with acrylic acid:

Test Type	:	Maximisation Test
Exposure routes	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	negative

2-(2-Hexyloxyethoxy)ethanol:

Test Type	:	Local lymph node assay (LLNA)
Exposure routes	:	Skin contact
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	negative

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silver massive: [particle diameter ≥ 1 mm]:

Test Type	: Maximisation Test
Exposure routes	: Skin contact
Species	: Guinea pig
Method	: OECD Test Guideline 406
Result	: negative

Copper metal powder:

Test Type	: Maximisation Test
Exposure routes	: Skin contact
Species	: Guinea pig
Method	: OECD Test Guideline 406
Result	: negative
Remarks	: The test was conducted according to guideline

Nickel:

Assessment	: Probability or evidence of skin sensitisation in humans
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Antimony ($\emptyset \leq 10 \mu\text{m}$):

Test Type	: Maximisation Test
Exposure routes	: Skin contact
Species	: Guinea pig
Method	: OECD Test Guideline 406
Result	: negative
Remarks	: Based on data from similar materials

Antimony ($\emptyset > 10 \mu\text{m}$):

Test Type	: Maximisation Test
Exposure routes	: Skin contact
Species	: Guinea pig
Method	: OECD Test Guideline 406
Result	: negative
Remarks	: Based on data from similar materials

Germ cell mutagenicity

Not classified due to lack of data.

Components:

Complex mixture of Chinese gum rosin post reacted with acrylic acid:

Genotoxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES)
	Method: OECD Test Guideline 471
	Result: negative

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2-(2-Hexyloxyethoxy)ethanol:

- Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
- Test Type: In vitro mammalian cell gene mutation test
Result: negative
- Test Type: In vitro sister chromatid exchange assay in mammalian cells
Result: negative
- Genotoxicity in vivo : Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)
Species: Rat
Application Route: Ingestion
Result: negative

silver massive: [particle diameter ≥ 1 mm]:

- Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

Copper metal powder:

- Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Method: Directive 67/548/EEC, Annex V, B.12.
Result: negative
Remarks: The test was conducted according to guideline
Based on data from similar materials

Bis(2-ethylhexyl)amine:

- Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative
- Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative
- Test Type: in vitro micronucleus test
Method: OECD Test Guideline 487

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Result: negative

Amines, (hydrogenated tallow alkyl)dimethyl:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Remarks: Based on data from similar materials

Antimony ($\varnothing \leq 10 \mu\text{m}$):

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 474
Result: negative
Remarks: Based on data from similar materials

Tin:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

Antimony ($\varnothing > 10 \mu\text{m}$):

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 474
Result: negative
Remarks: Based on data from similar materials

Carcinogenicity

Not classified due to lack of data.

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Components:

Nickel:

Carcinogenicity - Assessment : Limited evidence of carcinogenicity in inhalation studies with animals.

Antimony ($\varnothing \leq 10 \mu\text{m}$):

Species : Rat
Application Route : inhalation (dust/mist/fume)
Exposure time : 52 weeks
Result : positive
Remarks : Based on data from similar materials

Carcinogenicity - Assessment : Limited evidence of carcinogenicity in animal studies

Tin:

Species : Rat
Application Route : Ingestion
Exposure time : 115 weeks
Result : negative
Remarks : Based on data from similar materials

Reproductive toxicity

Suspected of damaging fertility. (Causing atrophy of the testes)

Components:

2-(2-Hexyloxyethoxy)ethanol:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: inhalation (vapour)
Result: negative
Remarks: Based on data from similar materials

silver massive: [particle diameter $\geq 1 \mu\text{m}$]:

Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

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Copper metal powder:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 416
Result: negative
Remarks: The test was conducted according to guideline
Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rabbit
Application Route: Ingestion
Method: OECD Test Guideline 414
Result: negative
Remarks: The test was conducted according to guideline
Based on data from similar materials

Bis(2-ethylhexyl)amine:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative

Effects on foetal development : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative

Nickel:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: inhalation (dust/mist/fume)
Result: negative
Remarks: Based on data from similar materials

Antimony ($\varnothing \leq 10 \mu\text{m}$):

Effects on fertility : Test Type: Fertility
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

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Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: inhalation (dust/mist/fume)
Method: OECD Test Guideline 414
Result: negative
Remarks: Based on data from similar materials

Tin:

Effects on fertility : Test Type: Reproduction/Developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 421
Result: negative

Effects on foetal development : Test Type: Reproduction/Developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 421
Result: negative

STOT - single exposure

Not classified due to lack of data.

Components:

Bis(2-ethylhexyl)amine:

Assessment : May cause respiratory irritation.

STOT - repeated exposure

Not classified due to lack of data.

Components:

silver massive: [particle diameter ≥ 1 mm]:

Exposure routes : Ingestion
Target Organs : Nervous system
Assessment : Shown to produce significant health effects in animals at concentrations of >10 to 100 mg/kg bw.

Bis(2-ethylhexyl)amine:

Assessment : No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.

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Nickel:

Exposure routes	: inhalation (dust/mist/fume)
Target Organs	: Respiratory Tract
Assessment	: Shown to produce significant health effects in animals at concentrations of 0.02 mg/l/6h/d or less.

Antimony ($\varnothing \leq 10 \mu\text{m}$):

Exposure routes	: inhalation (dust/mist/fume)
Target Organs	: Lungs
Assessment	: Shown to produce significant health effects in animals at concentrations of >0.02 to 0.2 mg/l/6h/d.

Repeated dose toxicity

Components:

2-(2-Hexyloxyethoxy)ethanol:

Species	: Rat
NOAEL	: 300 mg/kg
Application Route	: Ingestion
Exposure time	: 33 - 52 Days
Method	: OECD Test Guideline 422

Species	: Rat
NOAEL	: ≥ 2.000 mg/kg
Application Route	: Skin contact
Exposure time	: 13 Weeks
Remarks	: Based on data from similar materials

Bis(2-ethylhexyl)amine:

Species	: Rat
NOAEL	: ≥ 75 mg/kg
Application Route	: Ingestion
Exposure time	: 42 Days
Method	: OECD Test Guideline 422

Nickel:

Species	: Rat
NOAEL	: 4 mg/m ³
Application Route	: inhalation (dust/mist/fume)
Exposure time	: 4 Weeks
Method	: OECD Test Guideline 412

Antimony ($\varnothing \leq 10 \mu\text{m}$):

Species	: Rat
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NOAEL	:	1.686 mg/kg
Application Route	:	Ingestion
Exposure time	:	90 Days
Remarks	:	Based on data from similar materials

Species	:	Mouse
LOAEL	:	> 0,0025 - 0,025 mg/kg
Application Route	:	inhalation (dust/mist/fume)
Exposure time	:	2 yr
Remarks	:	Based on data from similar materials

Tin:

Species	:	Rat
NOAEL	:	> 1.000 mg/kg
Application Route	:	Ingestion
Exposure time	:	28 Days
Method	:	OECD Test Guideline 407

Aspiration toxicity

Not classified due to lack of data.

11.2 Information on other hazards

Endocrine disrupting properties

Not classified due to lack of data.

SECTION 12: Ecological information

12.1 Toxicity

Components:

Complex mixture of Chinese gum rosin post reacted with acrylic acid:

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 1 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 Remarks: No toxicity at the limit of solubility
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Toxicity to algae/aquatic plants	:	ErC50 (Desmodesmus subspicatus (green algae)): > 0,49 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: No toxicity at the limit of solubility
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NOEC (Desmodesmus subspicatus (green algae)): 0,49 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

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Remarks: No toxicity at the limit of solubility

2-(2-Hexyloxyethoxy)ethanol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 200 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : ErC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

EC10 (Desmodesmus subspicatus (green algae)): > 1 mg/l
Exposure time: 72 h
Remarks: Based on data from similar materials

Toxicity to microorganisms : NOEC : 1.000 mg/l
Exposure time: 30 min
Method: OECD Test Guideline 209

Copper metal powder:

Toxicity to fish : LL50 (Pimephales promelas (fathead minnow)): > 0,01 - 0,1 mg/l
Exposure time: 96 h
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 0,01 - 0,1 mg/l
Exposure time: 48 h
Remarks: Based on data from similar materials

M-Factor (Acute aquatic toxicity) : 10

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR: > 0,01 - 0,1 mg/l
Exposure time: 7 d
Species: Ceriodaphnia dubia (water flea)
Remarks: Based on data from similar materials

M-Factor (Chronic aquatic toxicity) : 1

Bis(2-ethylhexyl)amine:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 1,5 - 2,2 mg/l

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Exposure time: 96 h
Method: DIN 38412

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 2,2 mg/l
Exposure time: 48 h
Method: Directive 67/548/EEC, Annex V, C.2.

Toxicity to algae/aquatic plants : EC10 (Desmodesmus subspicatus (green algae)): 0,14 mg/l
Exposure time: 72 h

ErC50 (Desmodesmus subspicatus (green algae)): 1,55 mg/l
Exposure time: 72 h

Toxicity to microorganisms : EC10 (activated sludge): 18 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,039 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity) : 1

Amines, (hydrogenated tallow alkyl)dimethyl:

Toxicity to fish : LL50 (Danio rerio (zebra fish)): > 0,1 - 1 mg/l
Exposure time: 96 h
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 0,1 - 1 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : ErC50 (Desmodesmus subspicatus (green algae)): > 0,01 - 0,1 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

EC10 (Desmodesmus subspicatus (green algae)): > 0,001 - 0,01 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

M-Factor (Acute aquatic tox- : 10

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icity)

Toxicity to microorganisms : EC50 : > 10 - 100 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209
Remarks: Based on data from similar materials

Toxicity to daphnia and other : NOEC: > 0,01 - 0,1 mg/l
aquatic invertebrates (Chronic toxicity)
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity) : 1

Nickel:

Ecotoxicology Assessment

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

Antimony ($\emptyset \leq 10 \mu\text{m}$):

Toxicity to fish : LC50 : > 1 - 10 mg/l
Exposure time: 96 h
Remarks: Based on data from similar materials

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 10 - 100 mg/l
aquatic invertebrates
Exposure time: 48 h
Remarks: Based on data from similar materials

Toxicity to algae/aquatic : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 10 -
plants
100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

NOEC (Pseudokirchneriella subcapitata (green algae)): > 1 -
10 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

Toxicity to microorganisms : EC50 (activated sludge): > 10 - 100 mg/l
Exposure time: 4 h
Remarks: Based on data from similar materials

Toxicity to fish (Chronic toxicity) : NOEC: > 0,1 - 1 mg/l
Remarks: Based on national or regional regulation.

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Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: > 1 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211
Remarks: Based on data from similar materials

Tin:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 12,4 µg/l
Exposure time: 96 h
Remarks: No toxicity at the limit of solubility
Based on data from similar materials

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 19,2 µg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: No toxicity at the limit of solubility
Based on data from similar materials

Toxicity to microorganisms : EC50 : > 511 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 100 µg/l
Exposure time: 7 d
Species: Ceriodaphnia dubia (water flea)
Remarks: No toxicity at the limit of solubility
Based on data from similar materials

Antimony (Ø > 10 µm):

Ecotoxicology Assessment

Acute aquatic toxicity : No toxicity at the limit of solubility

Chronic aquatic toxicity : No toxicity at the limit of solubility

12.2 Persistence and degradability

Components:

Complex mixture of Chinese gum rosin post reacted with acrylic acid:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 25 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

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2-(2-Hexyloxyethoxy)ethanol:

Biodegradability : Result: Readily biodegradable.
 Biodegradation: 90 - 100 %
 Exposure time: 15 d
 Method: OECD Test Guideline 301A

Bis(2-ethylhexyl)amine:

Biodegradability : Result: Not readily biodegradable.
 Biodegradation: 69 %
 Exposure time: 28 d
 Method: OECD Test Guideline 301B

Amines, (hydrogenated tallow alkyl)dimethyl:

Biodegradability : Result: Readily biodegradable.
 Method: OECD Test Guideline 301D
 Remarks: Based on data from similar materials

Nickel:

Biodegradability : Result: not rapidly degradable

12.3 Bioaccumulative potential

Components:

Complex mixture of Chinese gum rosin post reacted with acrylic acid:

Partition coefficient: n- : log Pow: $\geq 6,04$
 octanol/water

2-(2-Hexyloxyethoxy)ethanol:

Partition coefficient: n- : log Pow: 1,7
 octanol/water

Bis(2-ethylhexyl)amine:

Partition coefficient: n- : log Pow: 7,3
 octanol/water Method: OECD Test Guideline 117

Amines, (hydrogenated tallow alkyl)dimethyl:

Partition coefficient: n- : log Pow: > 4
 octanol/water Remarks: Expert judgement

Nickel:

Bioaccumulation : Bioconcentration factor (BCF): < 500
 Remarks: Expert judgement

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Antimony ($\varnothing \leq 10 \mu\text{m}$):

Bioaccumulation : Species: Mytilus eduli (saltwater mussels)
Bioconcentration factor (BCF): 18 - 35

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

No data available

12.7 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging : Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number or ID number

ADN : Not regulated as a dangerous good

ADR : Not regulated as a dangerous good

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RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

14.2 UN proper shipping name

ADN : Not regulated as a dangerous good

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

14.3 Transport hazard class(es)

ADN : Not regulated as a dangerous good

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

14.4 Packing group

ADN : Not regulated as a dangerous good

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA (Cargo) : Not regulated as a dangerous good

IATA (Passenger) : Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Remarks : When carried in single packaging or inner packaging of 5kg/5L or less, this material is not subject to the transport regulations
the single packaging or inner packaging must not be UN-approved but must be a good quality packaging and suitable for the medium.

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14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Conditions of restriction for the following entries should be considered:
Number on list 3

Number on list 19: Arsenic

Number on list 27: Nickel

Number on list 72: Arsenic

Number on list 75: If you intend to use this product as tattoo ink, please contact your vendor.

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Not applicable

Regulation (EU) No 2024/590 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Storage class (TRGS 510) : 10: Combustible liquids

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : Not applicable

Occupational illnesses (R-461-3, France) : 84, 73, 49, 49 bis, 20 bis, 75

Reinforced medical supervision (R4624-23) : The product has no CMR properties category 1, 1A or 1B

Other regulations:

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Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Full text of H-Statements

H302	: Harmful if swallowed.
H311	: Toxic in contact with skin.
H312	: Harmful in contact with skin.
H314	: Causes severe skin burns and eye damage.
H315	: Causes skin irritation.
H317	: May cause an allergic skin reaction.
H318	: Causes serious eye damage.
H331	: Toxic if inhaled.
H332	: Harmful if inhaled.
H335	: May cause respiratory irritation.
H351	: Suspected of causing cancer.
H351	: Suspected of causing cancer if inhaled.
H361f	: Suspected of damaging fertility. (Causing atrophy of the testes)
H372	: Causes damage to organs through prolonged or repeated exposure if inhaled.
H373	: May cause damage to organs through prolonged or repeated exposure.
H400	: Very toxic to aquatic life.
H410	: Very toxic to aquatic life with long lasting effects.
H411	: Toxic to aquatic life with long lasting effects.
H412	: Harmful to aquatic life with long lasting effects.
H413	: May cause long lasting harmful effects to aquatic life.
EUH071	: Corrosive to the respiratory tract.

Full text of other abbreviations

Acute Tox.	: Acute toxicity
Aquatic Acute	: Short-term (acute) aquatic hazard
Aquatic Chronic	: Long-term (chronic) aquatic hazard
Carc.	: Carcinogenicity
Eye Dam.	: Serious eye damage
Repr.	: Reproductive toxicity
Skin Corr.	: Skin corrosion
Skin Irrit.	: Skin irritation
Skin Sens.	: Skin sensitisation
STOT RE	: Specific target organ toxicity - repeated exposure

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STOT SE	:	Specific target organ toxicity - single exposure
2000/39/EC	:	Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
2004/37/EC	:	Europe. Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens, mutagens or reprotoxic substances at work - Annex III
2006/15/EC	:	Europe. Indicative occupational exposure limit values
FR VLE	:	France. Occupational Exposure Limits
2000/39/EC / TWA	:	Limit Value - eight hours
2004/37/EC / TWA	:	Long term exposure limit
2006/15/EC / TWA	:	Limit Value - eight hours
FR VLE / VME	:	Time Weighted Average
FR VLE / VLCT (VLE)	:	Short Term Exposure Limit

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonised System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

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Classification of the mixture:

Eye Dam. 1	H318
Repr. 2	H361f
Aquatic Chronic 3	H412

Classification procedure:

Calculation method
Calculation method
Calculation method

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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