

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 9 Mar 2023

Print date: 29 Oct 2025

Version: 2.2



INDALLOY 256 (SAC305) with INDIUM10.1HF

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

1.1. Product identifier

Trade name/designation:

INDALLOY 256 (SAC305) with INDIUM10.1HF

Other means of identification:

SDS-6334S-256

Additional information:

SDS updated according to REG. 878/2020

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

Use of the substance/mixture:

Welding, soldering, and flux products

1.3. Details of the supplier of the safety data sheet

Manufacturer:

Indium Corporation of America

HQ

301 Woods Park Dr Ste 301

13323 Clinton, NY

United States

Telephone: (315) 853-4900

Telefax: (315) 853-1000

E-mail: EHS_Compliance@indium.com

Website: https://www.indium.com

Importer/Only Representative:

Indium Advanced Materials GmbH

Fragnerstrasse 4

84034 Landshut

Germany

Telephone: +49 871 4309500

E-mail: EHS_Compliance@indium.com

Website: http://www.indium.com

E-mail (competent person): EHS_Compliance@indium.com

1.4. Emergency telephone number

Germany, 24h: 0800-181-7059 or (Frankfurt) 49-69643508409

USA, 24h: 1 (800) 424-9300

China, 24h: +86 4001-204937

Outside USA, 24h: +1 (703) 527-3887

Poland, 24h: 48-223988029

United Kingdom, 24h: 44-870-8200418 and 44-2038073798

France, 24h: 33-975181407

Hungary, 24h: 36-18088425

Italy (Emergenza tossicologica), 24h: +34 91 52 04 20

Portugal, 24h: 351-308801773

Romania, 24h: 40-37-6300026

Norway, 24h: +(47)-21930678

Sweden, 24h: +(46)-852503403

Taiwan, 24h: 00801-14-8954

Costa Rica (CHEMTREC), 24h: +506-40003869

Costa Rica (National Poison Center), 24h: +506 2223 1028

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Vietnam (Poison Center), 24h: +84 (0)4 912620 876

Austria, 24h: +(43)-13649237

Czech Republic, 24h: +420 224 919 293 (+420 224 915 402)

Italy (National Poison Center), 24h: +39 02 6610 1029

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

Hazard classes and hazard categories	Hazard statements	Classification procedure
Respiratory or skin sensitisation (Skin Sens. 1B)	H317: May cause an allergic skin reaction.	
Serious eye damage/eye irritation (Eye Irrit. 2)	H319: Causes serious eye irritation.	
Respiratory or skin sensitisation (Resp. Sens. 1B)	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
Reproductive toxicity (Repr. 1B)	H360FD: May damage fertility. May damage the unborn child.	

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms:



GHS07

Exclamation mark



GHS08

Health hazard

Signal word: Danger

Hazard statements for health hazards	
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H360FD	May damage fertility. May damage the unborn child.

Supplemental hazard information: none

Precautionary statements Prevention	
P261	Avoid breathing vapours and spray.
P280	Wear protective gloves/protective clothing and eye protection/face protection.

Precautionary statements Response	
P301 + P312	IF SWALLOWED: Call a doctor if you feel unwell.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P362 + P364	Take off contaminated clothing and wash it before reuse.

Special rules for supplemental label elements for certain mixtures:

1.9 % percent of the mixture consists of ingredient(s) of unknown acute toxicity (oral).

4.3 % percent of the mixture consists of ingredient(s) of unknown acute toxicity (dermal).

5.9 % percent of the mixture consists of ingredient(s) of unknown acute toxicity (inhalative).

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2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 7440-31-5 EC No.: 231-141-8 REACH No.: 01-2119486474-28-XXXX	tin Substance with a community workplace exposure limit. Acute Toxicity Estimate ATE (oral) > 2,000 mg/kg ATE (dermal) > 2,000 mg/kg ATE (inhalation, dust/mist) > 4.75 mg/L	76 - ≤ 96 weight-%
CAS No.: 65997-05-9 REACH No.: 01-2119964093-37-XXXX	Dimerized rosin The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP]. Acute Toxicity Estimate ATE (oral) > 1,000 mg/kg ATE (dermal) > 2,000 mg/kg	5 - ≤ 6 weight-%
CAS No.: 9038-95-3	Polyglycol Ether The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].	3 - ≤ 4 weight-%
CAS No.: 7440-22-4 EC No.: 231-131-3 REACH No.: 01-2119555669-21-XXXX	silver Substance with a community workplace exposure limit. Acute Toxicity Estimate ATE (oral) 3,702 mg/kg ATE (dermal) > 348 mg/kg ATE (inhalation, dust/mist) = 0.00213 - = 0.00807 mg/L	1 - ≤ 3 weight-%
CAS No.: 143-24-8 EC No.: 205-594-7 Index No.: 603-238-00-9 REACH No.: 01-2119958965-16-XXXX	bis(2-(2-methoxyethoxy)ethyl) ether <i>Candidate List of Substances of Very High Concern for Authorisation!</i> Repr. 1B (H360FD) ⚠ Danger Acute Toxicity Estimate ATE (oral) 3,850 mg/kg	0.2 - ≤ 1.3 weight-%
CAS No.: 7440-50-8 EC No.: 231-159-6 REACH No.: 01-2119480154-42-XXXX	copper The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP]. Acute Toxicity Estimate ATE (oral) 481 mg/kg ATE (dermal) > 2,000 mg/kg	0.05 - ≤ 0.5 weight-%

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious but breathing normally, place in recovery position and seek medical advice. Do not leave affected person unattended. Warning First aider: Pay attention to self-protection!

Following inhalation:

Provide fresh air. In case of respiratory tract irritation, consult a physician. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator. Get immediate medical advice/attention. Get medical advice/attention if you feel unwell.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention. Take off immediately all contaminated clothing.

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After eye contact:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Following ingestion:

Rinse mouth. Let 1 glass of water be drunk in little sips (dilution effect). Get medical advice/attention if you feel unwell.

Self-protection of the first aider:

Use personal protection equipment. No direct artificial respiration to be given by first aider.

4.2. Most important symptoms and effects, both acute and delayed

Serious eye damage/eye irritation Allergic reactions Asthmatic complaints Respiratory complaints

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media:

none

5.2. Special hazards arising from the substance or mixture

The product itself does not burn.

Hazardous combustion products:

In case of fire: Gases/vapours, toxic

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Remove persons to safety.

Protective equipment:

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

6.1.2. For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment:

Collect spillage. Measures to prevent aerosol and dust generation Wet clean or vacuum up solids.

For cleaning up:

Water (with cleaning agent)

6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

6.5. Additional information

Use appropriate container to avoid environmental contamination.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Wear personal protection equipment (refer to section 8). Avoid contact during pregnancy/while nursing.

Measures to prevent aerosol and dust generation:

Dust should be exhausted directly at the point of origin.

Advices on general occupational hygiene

When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

Storage class (TRGS 510, Germany): 13 - Non-combustible solids that cannot be assigned to any of the above storage classes

7.3. Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
WEL (GB)	tin CAS No.: 7440-31-5 EC No.: 231-141-8	① 2 mg/m ³ ② 4 mg/m ³
IOELV (EU)	tin CAS No.: 7440-31-5 EC No.: 231-141-8	① 2 mg/m ³
PL from 12 Jun 2018	tin CAS No.: 7440-31-5 EC No.: 231-141-8	① 2 mg/m ³ ⑤ (wdychalna frakcja)
IE from 17 Jan 2020	tin CAS No.: 7440-31-5 EC No.: 231-141-8	① 2 mg/m ³ ⑤ (oxides and compounds, inorganic) IOELV
HTP (FI)	tin CAS No.: 7440-31-5 EC No.: 231-141-8	① 2 mg/m ³ ⑤ (määritetty tina) Sn
ES	tin CAS No.: 7440-31-5 EC No.: 231-141-8	① 2 mg/m ³ ⑤ (compuestos, inorgánico; calculado como estaño) VLI
HU	tin CAS No.: 7440-31-5 EC No.: 231-141-8	① 2 mg/m ³ ② 8 mg/m ³ ⑤ (felvehető a bőrön keresztül) b, i, T
TRGS 900 (DE)	tin CAS No.: 7440-31-5 EC No.: 231-141-8	① 2 mg/m ³ ⑤ einatembare Fraktion (Zinn(IV)-Verbindungen) EU, 13, 10
TRGS 900 (DE)	tin CAS No.: 7440-31-5 EC No.: 231-141-8	① 8 mg/m ³ ⑤ einatembare Fraktion (Zinn (II)-Verbindungen) EU, AGS, 10

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ACGIH (US) from 1 Jan 2019	tin CAS No.: 7440-31-5 EC No.: 231-141-8	① 2 mg/m ³ ⑤ (metal and compounds, inorganic; inhalable fraction)
SE from 1 Jun 2016	tin CAS No.: 7440-31-5 EC No.: 231-141-8	① 2 mg/m ³
IDLH (US) from 1 Jan 1994	tin CAS No.: 7440-31-5 EC No.: 231-141-8	① 100 Sn/m ³
OSHA (US)	tin CAS No.: 7440-31-5 EC No.: 231-141-8	① 2 mg/m ³
NIOSH (US)	tin CAS No.: 7440-31-5 EC No.: 231-141-8	① 2 mg/m ³
PL from 12 Jun 2018	silver CAS No.: 7440-22-4 EC No.: 231-131-3	① 0.05 mg/m ³ ⑤ (wdychalna frakcja)
IE	silver CAS No.: 7440-22-4 EC No.: 231-131-3	① 0.1 mg/m ³ ⑤ IOELV
HTP (FI) from 1 Oct 2018	silver CAS No.: 7440-22-4 EC No.: 231-131-3	① 0.01 mg/m ³ ② 0.03 mg/m ³ ⑤ Ag
SE	silver CAS No.: 7440-22-4 EC No.: 231-131-3	① 0.1 mg/m ³ ⑤ (Silver och Silver föreningar, svårt löslig; beräknad som Ag; inhalerbar fraktion)
TRGS 900 (DE) from 23 Jun 2022	silver CAS No.: 7440-22-4 EC No.: 231-131-3	① 0.1 mg/m ³ ② 0.8 mg/m ³ ⑤ (Metall, einatembare Fraktion) DFG, EU
IOELV (EU)	silver CAS No.: 7440-22-4 EC No.: 231-131-3	① 0.1 mg/m ³ ⑤ (metal)
WEL (GB)	silver CAS No.: 7440-22-4 EC No.: 231-131-3	① 0.1 mg/m ³ ⑤ (metal)
VRI (FR) from 3 May 2021	silver CAS No.: 7440-22-4 EC No.: 231-131-3	① 0.1 mg/m ³ ⑤ (métal)
HU from 1 Jul 2018	silver CAS No.: 7440-22-4 EC No.: 231-131-3	① 0.1 mg/m ³ ⑤ T
ES from 8 Jun 2023	silver CAS No.: 7440-22-4 EC No.: 231-131-3	① 0.1 mg/m ³ ⑤ (metal) VLI
IDLH (US) from 1 Jan 1994	silver CAS No.: 7440-22-4 EC No.: 231-131-3	① 10 Ag/m ³
OSHA (US) from 2 Jan 1900	silver CAS No.: 7440-22-4 EC No.: 231-131-3	① 0.01 mg/m ³ ⑤ (metal and compounds, soluble)

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NIOSH (US)	silver CAS No.: 7440-22-4 EC No.: 231-131-3	① 0.01 mg/m ³
ACGIH (US)	silver CAS No.: 7440-22-4 EC No.: 231-131-3	① 0.1 mg/m ³
WEL (GB)	copper CAS No.: 7440-50-8 EC No.: 231-159-6	① 0.2 mg/m ³ ⑤ (Smoke)
WEL (GB)	copper CAS No.: 7440-50-8 EC No.: 231-159-6	① 1 mg/m ³ ② 2 mg/m ³ ⑤ (Dusts and mist calculated as Cu)
PL from 6 Aug 2010	copper CAS No.: 7440-50-8 EC No.: 231-159-6	① 0.2 mg/m ³
IE	copper CAS No.: 7440-50-8 EC No.: 231-159-6	① 0.2 mg/m ³ ⑤ (Smoke)
HTP (FI) from 1 Oct 2018	copper CAS No.: 7440-50-8 EC No.: 231-159-6	① 0.02 mg/m ³ ⑤ Cu, alveolijae
SE	copper CAS No.: 7440-50-8 EC No.: 231-159-6	① 1 mg/m ³ ⑤ (beräknad som Cu; inhalerbar fraktion)
SE	copper CAS No.: 7440-50-8 EC No.: 231-159-6	① 0.2 mg/m ³ ⑤ (beräknad som Cu; respirabel fraktion)
IE from 17 Jan 2020	copper CAS No.: 7440-50-8 EC No.: 231-159-6	① 1 mg/m ³ ⑤ (Dusts and mist calculated as Cu)
ES from 1 May 2021	copper CAS No.: 7440-50-8 EC No.: 231-159-6	① 0.01 mg/m ³ ⑤ (fracción respirable) d
VLA (FR)	copper CAS No.: 7440-50-8 EC No.: 231-159-6	① 0.2 mg/m ³ ⑤ (Fumée)
VLA (FR)	copper CAS No.: 7440-50-8 EC No.: 231-159-6	① 1 mg/m ³ ② 2 mg/m ³ ⑤ (Poussières)
OSHA (US)	copper CAS No.: 7440-50-8 EC No.: 231-159-6	① 0.1 mg/m ³ ⑤ (Smoke; calculated as Cu)
ACGIH (US)	copper CAS No.: 7440-50-8 EC No.: 231-159-6	① 0.2 mg/m ³ ⑤ (Smoke)
HU from 7 Feb 2020	copper CAS No.: 7440-50-8 EC No.: 231-159-6	① 0.1 mg/m ³ ② 0.2 mg/m ³ ⑤ R
HU from 7 Feb 2020	copper CAS No.: 7440-50-8 EC No.: 231-159-6	① 0.01 mg/m ³ ⑤ (belélegezhető frakció, Füst) R

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Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
IDLH (US) from 1 Jan 1994	copper CAS No.: 7440-50-8 EC No.: 231-159-6	① 100 Cu/m ³ ⑤ (dust and mist)
IDLH (US) from 1 Jan 1994	copper CAS No.: 7440-50-8 EC No.: 231-159-6	① 100 Cu/m ³ ⑤ (Smoke)
OSHA (US)	copper CAS No.: 7440-50-8 EC No.: 231-159-6	① 1 mg/m ³ ⑤ (Dusts and mist calculated as Cu)
NIOSH (US)	copper CAS No.: 7440-50-8 EC No.: 231-159-6	① 1 mg/m ³
ACGIH (US)	copper CAS No.: 7440-50-8 EC No.: 231-159-6	① 1 mg/m ³ ⑤ (Dusts and mist calculated as Cu)
DFG (DE) from 1 Jul 2013	copper CAS No.: 7440-50-8 EC No.: 231-159-6	① 0.01 mg/m ³ ② 0.02 mg/m ³ ⑤ (alveolengängige Fraktion)

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

No data available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation. Dispose contaminated cloth rags or paper towels following all applicable governmental regulations.

8.2.2. Personal protection equipment

Eye/face protection:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin protection:

Tested protective gloves must be worn EN ISO 374 In the case of wanting to use the gloves again, clean them before taking off and air them well.

Respiratory protection:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

8.2.3. Environmental exposure controls

No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: solid

Colour: light grey

Odour: not determined

flammability: No

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Safety relevant basis data

Parameter	Value	① Method ② Remark
pH	4 - 8	② Flux agent
Melting point	No data available	
Freezing point	No data available	
Initial boiling point and boiling range	No data available	
Decomposition temperature	not applicable	
Flash point	not applicable	
Evaporation rate	not applicable	
Auto-ignition temperature	not applicable	
Upper/lower flammability or explosive limits	not applicable	
Vapour pressure	No data available	
Density	No data available	
Bulk density	No data available	
Water solubility	practically insoluble	

particle characteristics:

No data available

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product itself does not burn.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

Thermally stable.

10.4. Conditions to avoid

extreme temperatures

10.5. Incompatible materials

Acids; alkalines; Oxidizing agent

10.6. Hazardous decomposition products

In case of fire: Gases/vapours, toxic

SECTION 11: Toxicological information

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

tin	CAS No.: 7440-31-5 EC No.: 231-141-8
LD₅₀ oral:	>2,000 mg/kg (Rat) OECD Guideline 423 (Acute Oral Toxicity)
LD₅₀ dermal:	>2,000 mg/kg (Rat)
LC₅₀ Acute inhalation toxicity (dust/mist):	>4.75 mg/L (Rat)
silver	CAS No.: 7440-22-4 EC No.: 231-131-3
LD₅₀ oral:	3,702 mg/kg (Rat) OECD Guideline 401 (Acute Oral Toxicity)
LD₅₀ dermal:	>348 mg/kg (Guinea pig) OECD Guideline 434 (Acute Dermal Toxicity - Fixed Dose Procedure)
LC₅₀ Acute inhalation toxicity (dust/mist):	=0.00213 - =0.00807 mg/L 4 d (fish)
bis(2-(2-methoxyethoxy)ethyl) ether	CAS No.: 143-24-8 EC No.: 205-594-7
LD₅₀ oral:	3,850 mg/kg (rat) OECD Guideline 401 (Acute Oral Toxicity)

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copper CAS No.: 7440-50-8 EC No.: 231-159-6
--

LD₅₀ oral: 481 mg/kg (Rat)
--

LD₅₀ dermal: >2,000 mg/kg (Rat)

Dimerized rosin CAS No.: 65997-05-9
--

LD₅₀ oral: >1,000 mg/kg (rat) OECD Guideline 401 (Acute Oral Toxicity)
--

LD₅₀ dermal: >2,000 mg/kg (rat) OECD Guideline 402 (Acute Dermal Toxicity)
--

Acute oral toxicity:

Based on available data, the classification criteria are not met.

Acute dermal toxicity:

Based on available data, the classification criteria are not met.

Acute inhalation toxicity:

Based on available data, the classification criteria are not met.

Skin corrosion/irritation:

Based on available data, the classification criteria are not met.

Serious eye damage/irritation:

Causes serious eye irritation.

Respiratory or skin sensitisation:

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

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. May damage fertility. May damage the unborn child.

STOT-single exposure:

Based on available data, the classification criteria are not met.

STOT-repeated exposure:

Based on available data, the classification criteria are not met.

Aspiration hazard:

Based on available data, the classification criteria are not met.

Additional information:

No data available

11.2. Information on other hazards

No data available

SECTION 12: Ecological information

12.1. Toxicity

tin CAS No.: 7440-31-5 EC No.: 231-141-8

LC₅₀: >0.0124 mg/L 4 d (fish, Pimephales promelas (fathead minnow)) OECD Guideline 203 (Fish, Acute Toxicity Test)
--

EC₅₀: >0.0192 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata) OECD Guideline 201 (Alga, Growth Inhibition Test)

NOEC: 0.0124 mg/L 4 d (fish, Pimephales promelas (fathead minnow)) OECD Guideline 203 (Fish, Acute Toxicity Test)
--

NOEC: 0.0192 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata) OECD Guideline 201 (Alga, Growth Inhibition Test)

LOEC: 0.2 mg/L (crustaceans, Ceriodaphnia dubia)

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silver CAS No.: 7440-22-4 EC No.: 231-131-3

LC₅₀: 0.0012 mg/L 4 d (fish, *Pimephales promelas* (fathead minnow))

LC₅₀: 0.00022 mg/L 2 d (crustaceans, *Daphnia magna* (Big water flea))

EC₅₀: 0.000016 mg/L 3 d (Algae/water plant, *Pseudokirchneriella subcapitata*)

NOEC: 0.000003 mg/L 3 d (Algae/water plant, *Pseudokirchneriella subcapitata*)

NOEC: 0.000057 mg/L 21 d (crustaceans, *Daphnia magna* (Big water flea))

NOEC: 0.019 mg/L 28 d (crustaceans, *Americamysis bahia*) ASTM E1191-97 (2003) and ASTM E1241-98 (2003).

LOEC: 0.00013 mg/L 3 d (Algae/water plant, *Pseudokirchneriella subcapitata* (previous names: *Raphidocelis subcapitata*, *Selenastrum capricornutum*))

LOEC: 0.000163 mg/L 21 d (crustaceans, *Daphnia magna*)

LOEC: 0.00013 mg/L 3 d (Algae/water plant, *Pseudokirchneriella subcapitata*)

LOEC: 0.00163 mg/L 21 d (crustaceans, *Daphnia magna* (Big water flea))

bis(2-(2-methoxyethoxy)ethyl) ether CAS No.: 143-24-8 EC No.: 205-594-7

LC₅₀: >5,000 mg/L 4 d (fish, *Danio rerio* (previous name: *Brachydanio rerio*))

EC₅₀: 2,814 mg/L 3 d (Algae/water plant, *Pseudokirchneriella subcapitata* (previous names: *Raphidocelis subcapitata*, *Selenastrum capricornutum*))

EC₅₀: 7,467 mg/L 2 d (crustaceans, *Daphnia magna*)

NOEC: <625 mg/L 3 d (Algae/water plant, *Pseudokirchneriella subcapitata* (previous names: *Raphidocelis subcapitata*, *Selenastrum capricornutum*))

NOEC: ≥5,000 mg/L 4 d (fish, *Danio rerio* (previous name: *Brachydanio rerio*))

NOEC: 2,500 mg/L 2 d (crustaceans, *Daphnia magna*)

NOEC: 320 mg/L 21 d (crustaceans, *Daphnia magna*) OECD Guideline 211 (*Daphnia magna* Reproduction Test)

LOEC: 5,000 mg/L 2 d (crustaceans, *Daphnia magna*)

copper CAS No.: 7440-50-8 EC No.: 231-159-6

LC₅₀: ≥0.0087 - ≤21 mg/L 4 d (fish)

LC₅₀: ≤5.36 mg/L 2 d (crustaceans)

Dimerized rosin CAS No.: 65997-05-9

LC₅₀: 1.7 mg/L 4 d (fish, *Pimephales promelas*) OECD Guideline 203 (Fish, Acute Toxicity Test)

LC₅₀: 1.6 mg/L 2 d (crustaceans, *Daphnia magna*) OECD Guideline 202 (*Daphnia* sp. Acute Immobilisation Test)

EC₅₀: 16.6 mg/L 3 d (Algae/water plant, *Pseudokirchneriella subcapitata* (previous names: *Raphidocelis subcapitata*, *Selenastrum capricornutum*)) OECD Guideline 201 (Alga, Growth Inhibition Test)

NOEC: 6.25 mg/L 3 d (Algae/water plant, *Pseudokirchneriella subcapitata* (previous names: *Raphidocelis subcapitata*, *Selenastrum capricornutum*)) OECD Guideline 201 (Alga, Growth Inhibition Test)

NOEC: 0.625 mg/L 4 d (fish, *Pimephales promelas*) OECD Guideline 203 (Fish, Acute Toxicity Test)

NOEC: 0.625 mg/L 2 d (crustaceans, *Daphnia magna*) OECD Guideline 202 (*Daphnia* sp. Acute Immobilisation Test)

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

silver CAS No.: 7440-22-4 EC No.: 231-131-3

Bioconcentration factor (BCF): 143 Species: *Oncorhynchus mykiss* (previous name: *Salmo gairdneri*)

bis(2-(2-methoxyethoxy)ethyl) ether CAS No.: 143-24-8 EC No.: 205-594-7

Log K_{OW}: 0.84

Dimerized rosin CAS No.: 65997-05-9

Log K_{OW}: > 6.5

Bioconcentration factor (BCF): 7,748

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

tin CAS No.: 7440-31-5 EC No.: 231-141-8

Results of PBT and vPvB assessment: —

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silver	CAS No.: 7440-22-4	EC No.: 231-131-3
Results of PBT and vPvB assessment: —		
bis(2-(2-methoxyethoxy)ethyl) ether	CAS No.: 143-24-8	EC No.: 205-594-7
Results of PBT and vPvB assessment: —		
copper	CAS No.: 7440-50-8	EC No.: 231-159-6
Results of PBT and vPvB assessment: —		
Dimerized rosin	CAS No.: 65997-05-9	
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.		
Polyglycol Ether	CAS No.: 9038-95-3	
Results of PBT and vPvB assessment: —		

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of contents/container to an appropriate recycling or disposal facility.

Waste treatment options

Appropriate disposal / Product:

Consult the appropriate local waste disposal expert about waste disposal.

SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN number or ID number			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
14.3. Transport hazard class(es)			
not relevant	not relevant	not relevant	not relevant
14.4. Packing group			
not relevant	not relevant	not relevant	not relevant
14.5. Environmental hazards			
not relevant	not relevant	not relevant	not relevant
14.6. Special precautions for user			
not relevant	not relevant	not relevant	not relevant

14.7. Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

15.1.1. EU legislation

Authorisations:

Contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: bis(2-(2-methoxyethoxy)ethyl) ether

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15.1.2. National regulations

[DE] National regulations

Water hazard class

WGK:

3 - highly hazardous to water

[US] National regulations

California Proposition 65 list of chemicals

WARNING: This product can expose you to chemicals including [trace amounts of lead] which is known to the State of California to cause cancer, and can cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

15.2. Chemical Safety Assessment

No data available

15.3. Additional information

Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer: not applicable

SECTION 16: Other information

16.1. Indication of changes

No data available

16.2. Abbreviations and acronyms

ACGIH	American Conference of Governmental Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ASTM	American Society for Testing and Materials
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
DNEL	derived no-effect level
EC ₅₀	Effective Concentration 50%
EN	European Standard
ES	Exposure scenario
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Standards Organisation
LC ₅₀	Lethal (fatal) Concentration 50%
LD ₅₀	Lethal (fatal) Dose 50%
MAK	Maximum concentration in the workplace air (CH)
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety & Health
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Cooperation and Development
OSHA	Occupational Safety & Health Administration
PBT	persistent and bioaccumulative and toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation and Authorization of Chemicals
RID	Dangerous goods regulations for transport by rail
SVHC	substances of very high concern
TRGS	Technische Regeln für Gefahrstoffe
UN	United Nations

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16.3. Key literature references and sources for data

Substance name	Type	source of supply
bis(2-(2-methoxyethoxy)ethyl) ether CAS No.: 143-24-8 EC No.: 205-594-7	LD ₅₀ oral; LC ₅₀ ; EC ₅₀ ; NOEC; LOEC	Source: European Chemicals Agency, http://echa.europa.eu/
Dimerized rosin CAS No.: 65997-05-9	LD ₅₀ oral; LD ₅₀ dermal; LC ₅₀ ; EC ₅₀ ; NOEC	Source: European Chemicals Agency, http://echa.europa.eu/
silver CAS No.: 7440-22-4 EC No.: 231-131-3	LOEC	Source: European Chemicals Agency, http://echa.europa.eu/

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Hazard classes and hazard categories	Hazard statements	Classification procedure
Respiratory or skin sensitisation (Skin Sens. 1B)	H317: May cause an allergic skin reaction.	
Serious eye damage/eye irritation (Eye Irrit. 2)	H319: Causes serious eye irritation.	
Respiratory or skin sensitisation (Resp. Sens. 1B)	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
Reproductive toxicity (Repr. 1B)	H360FD: May damage fertility. May damage the unborn child.	

16.5. List of relevant hazard statements and/or precautionary statements from sections 2 to 15

Hazard statements
H360FD May damage fertility. May damage the unborn child.

16.6. Training advice

No data available

16.7. Additional information

No data available