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

1.1. Product identifier

Trade name/designation:

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Other means of identification:

SDS-IN TF007

1.2. Relevant identified uses of the substance or mixture and uses advised against No data available

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/ distributor):

Indium Corporation of America

Americas 34 Robinson Road 13323 Clinton, NY **United States**

Telephone: (315) 853-4900 **Telefax:** (315) 853-1000

E-mail: EHS Compliance@indium.com Website: https://www.indium.com

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

CHEMTREC 24 hrs

1.4. Emergency telephone number

Romania, 24h: 40-37-6300026

Poland, 24h: 48-223988029

Italy, 24h: 800-789-767

Portugal, 24h: 351-308801773 Hungary, 24h: 36-18088425

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

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

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

France, 24h: 33-975181407

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

China, 24h: +86 4001-204937

Indium Advanced Materials GmbH

Fragnerstrasse 4 84034 Landshut Germany

Telephone: +49 871 4309500 E-mail: EHS Compliance@indium.com Website: http://www.indium.com

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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.	

2.2. Label elements

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



GHS07 Exclamation mark



GHS08 Health hazard

Signal word: Danger

- 3		
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.	

Supplemental hazard information		
EUH208	Contains Rosin, oligomers. May produce an allergic reaction.	

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

Precautionary statements Response		
P301 + P312	IF SWALLOWED: Call a doctor if you feel unwell.	
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.	
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:

- 2.1 % percent of the mixture consists of ingredient(s) of unknown acute toxicity (oral).
- 4.2 % percent of the mixture consists of ingredient(s) of unknown acute toxicity (dermal).
- 58.7 % percent of the mixture consists of ingredient(s) of unknown acute toxicity (inhalative).

2.3. Other hazards

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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.: 65997-05-9 EC No.: 500-163-2	Rosin, oligomers The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].	56 - ≤ 64 weight-%
CAS No.: 9038-95-3	Polyglycol Ether The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].	31 - ≤ 35 weight-%
CAS No.: 68603-15-6 EC No.: 271-642-9	Alcohols, C6-12 The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].	4 - ≤ 15 weight-%
CAS No.: 61788-85-0 EC No.: 500-147-5	Castor oil, hydrogenated, ethoxylated The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].	1 - ≤ 10 weight-%

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.

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.

In case of skin contact:

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

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 drunken in little sips (dilution effect). Get medical advice/attention if you feel unwell.

Self-protection of the first aider:

Use personal protection equipment.

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:

Use extinguishers appropriate for the surrounding fire conditions. Water, CO2 or foam media.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products:

In case of fire: Gases/vapours, toxic

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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:

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Keep container tightly closed. Clear spills immediately. Wash hands thoroughly after handling. Provide adequate ventilation as well as local exhaustion at critical locations. Wear personal protection equipment (refer to section 8).

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:

Store product in tightly capped original containers in a cool, dry area. Refer to product label and product data sheet for specific storage temperature requirements. Rotate stock to ensure use before expiration

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

Storage class (TRGS 510, Germany): 12 - non-combustible liquids that cannot be assigned to any of the above storage classes

7.3. Specific end use(s)

Recommendation:

Soldering applications

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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8.2. Exposure controls

8.2.1. Appropriate engineering controls

No data available

8.2.2. Personal protection equipment

Eye/face protection:

Eye glasses with side protection EN 166

Skin protection:

Tested protective gloves must be worn EN ISO 374 Suitable material: Breakthrough time: min In the case of wanting to use the gloves again, clean them before taking off and air them well. Breakthrough times and swelling properties of the material must be taken into consideration.

Respiratory protection:

An approved or EU compliant CE marked air-purifying respirator with a fume/organic cartridge is recommended under certain circumstances where airborne concentrations are expected to be elevated.

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: Liquid Colour: yellow

Odour: not determined

Safety relevant basis data

Parameter	Value	① Method
		② Remark
рН	No data available	
Melting point	No data available	
Freezing point	No data available	
Initial boiling point and boiling range	No data available	
Decomposition temperature	No data available	
Flash point	> 200 °C	
Evaporation rate	No data available	
Auto-ignition temperature	not applicable	
Upper/lower flammability or explosive limits	not applicable	
Vapour pressure	not determined	
Vapour density	not determined	
Density	1 g/cm³	
Relative density	not determined	
Bulk density	not determined	
Water solubility	practically insoluble	
Partition coefficient: n-octanol/water	not determined	
Dynamic viscosity	not determined	
Kinematic viscosity	not determined	

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable under storage at normal ambient temperatures.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

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10.3. Possibility of hazardous reactions

Stable under recommended storage and handling conditions.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Oxidising agent, strong

10.6. Hazardous decomposition products

The product is stable under storage at normal ambient temperatures.

SECTION 11: Toxicological information

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

Rosin, oligomers CAS No.: 65997-05-9 EC No.: 500-163-2

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

LD₅₀ dermal: >2,000 mg/kg (Rat)

Castor oil, hydrogenated, ethoxylated CAS No.: 61788-85-0 EC No.: 500-147-5

LD₅₀ oral: >2,000 mg/kg (rat)

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. Contains Rosin, oligomers. May produce an allergic 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.

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

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

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SECTION 12: Ecological information

12.1. Toxicity

Rosin, oligomers CAS No.: 65997-05-9 EC No.: 500-163-2

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

LC₅₀: 1.6 mg/L 2 d (crustaceans, Daphnia magna (Big water flea)) OECD Guideline 202 (Daphnia Acute Immobilisation Test)

EC₅₀: 16.6 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata) OECD Guideline 201 (Alga, Growth Inhibition Test)

NOEC: 6.25 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata) OECD Guideline 201 (Alga, Growth Inhibition Test)

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

NOEC: 0.625 mg/L 2 d (crustaceans, Daphnia magna (Big water flea)) OECD Guideline 202 (Daphnia Acute Immobilisation Test)

Castor oil, hydrogenated, ethoxylated CAS No.: 61788-85-0 EC No.: 500-147-5

LC₅₀: >1 mg/L 4 d (fish, Oncorhynchus mykiss (previous name: Salmo gairdneri))

EC₅₀: >1 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)) OECD Guideline 201 (Alga, Growth Inhibition Test)

EC50: >1 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

Rosin, oligomers CAS No.: 65997-05-9 EC No.: 500-163-2

Log K_{OW}: > 6.5

Bioconcentration factor (BCF): 7,748

Castor oil, hydrogenated, ethoxylated CAS No.: 61788-85-0 EC No.: 500-147-5

Log K_{OW}: 18.5

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

Rosin, oligomers CAS No.: 65997-05-9 **EC No.:** 500-163-2

Results of PBT and vPvB assessment: —

Polyglycol Ether CAS No.: 9038-95-3

Results of PBT and vPvB assessment: -

Castor oil, hydrogenated, ethoxylated CAS No.: 61788-85-0 EC No.: 500-147-5

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

Waste treatment options

Appropriate disposal / Product:

Consult the appropriate local waste disposal expert about waste disposal.

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SECTION 14: Transport information

Land transport (ADR/RID)	(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 haza	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: none

15.1.2. National regulations

[DE] National regulations

Water hazard class

WGK:

3 - Severely water-hazardous

[US] National regulations

California Proposition 65 list of chemicals

Does not contain any chemicals listed under California Proposition 65 chemical list

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

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

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16.3. Key literature references and sources for data

Substance name	Туре	source of supply
Castor oil, hydrogenated, ethoxylated CAS No.: 61788-85-0	LD ₅₀ oral; LC ₅₀ ; EC ₅₀	Source: European Chemicals Agency, http://echa.europa.eu/
EC No.: 500-147-5		i i

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.	

16.5. Relevant R-, H- and EUH-phrases (Number and full text)

No data available

16.6. Training advice

No data available

16.7. Additional information