

SAFETY DATA SHEET

acc. to 29 CFR 1910.1200 App D

Revision date: Sep 28, 2022

Print date: Jun 27, 2023

Version: 2.1



PoP FLUX 8.9HF-LV

SECTION 1: Identification

1.1. Product identifier

Trade name/designation:

PoP FLUX 8.9HF-LV

Other means of identification:

SDS-4839

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

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>

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

CHEMTREC 24 hrs

1.4. Emergency telephone number

Romania, 24h: 40-37-6300026

Norway, 24h: +(47)-21930678

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

Sweden, 24h: +(46)-852503403

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

SAFETY DATA SHEET

acc. to 29 CFR 1910.1200 App D

Revision date: Sep 28, 2022

Print date: Jun 27, 2023

Version: 2.1



PoP FLUX 8.9HF-LV

SECTION 2: Hazard(s) Identification

2.1. Classification according to 29 CFR Part 1910.1200

Hazard classes and hazard categories	Hazard statements
Serious eye damage/eye irritation (1)	Causes serious eye damage.
Reproductive toxicity (1B)	May damage fertility or the unborn child.
Respiratory or skin sensitization (Skin sensitization - 1)	May cause an allergic skin reaction.
Respiratory or skin sensitization (Respiratory or skin sensitization)	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

2.2. Labelling according to 29 CFR Part 1910.1200

Hazard pictograms:



GHS07

Exclamation mark



GHS05

Corrosion



GHS08

Health hazard

Signal word: Danger

Hazard statements:

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

Precautionary statements:

Precautionary statements Prevention
Avoid breathing vapours and spray.
Wear personal protective equipment/face protection.
Precautionary statements Response
IF SWALLOWED: Call a POISON CENTER/doctor/.../ if you feel unwell.
If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Take off contaminated clothing and wash it before reuse.

Special rules for supplemental label elements for certain mixtures:

1.5 % percent of the mixture consists of ingredient(s) of unknown acute toxicity (oral).

50.4 % percent of the mixture consists of ingredient(s) of unknown acute toxicity (dermal).

76.7 % percent of the mixture consists of ingredient(s) of unknown acute toxicity (inhalative).

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name	Concentration
CAS No.: 65997-05-9	Dimerized rosin	40 - ≤ 45 weight-%
CAS No.: 9038-95-3	Polyglycol Ether	30 - ≤ 40 weight-%
CAS No.: 68937-72-4	Carboxylic acids, di-, C4-11	15 - ≤ 25 weight-%
CAS No.: 143-24-8	bis(2-(2-methoxyethoxy)ethyl) ether	4 - < 8 weight-%

SAFETY DATA SHEET

acc. to 29 CFR 1910.1200 App D

Revision date: Sep 28, 2022

Print date: Jun 27, 2023

Version: 2.1



PoP FLUX 8.9HF-LV

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. Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

After eye contact:

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

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. No direct artificial respiration to be given by first aider.

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

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

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

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media:

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

Unsuitable extinguishing media:

none

5.2. Special hazards arising from the substance or mixture

May produce toxic fumes of carbon dioxide if burning.

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.

SAFETY DATA SHEET

acc. to 29 CFR 1910.1200 App D

Revision date: Sep 28, 2022

Print date: Jun 27, 2023

Version: 2.1



PoP FLUX 8.9HF-LV

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:

Avoid breathing dust/fume/gas/mist/vapours/spray. Clear spills immediately. Wear appropriate personal protective equipment when working or handling material. Always thoroughly wash your hands after handling this product. Wear personal protection equipment (refer to section 8). Avoid contact during pregnancy/while nursing.

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 date.

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)

Recommendation:

Soldering applications

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No data available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

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.

SAFETY DATA SHEET

acc. to 29 CFR 1910.1200 App D

Revision date: Sep 28, 2022

Print date: Jun 27, 2023

Version: 2.1



PoP FLUX 8.9HF-LV

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: yellow

Odour: not determined

Safety relevant basis data

Parameter	Value	① Method ② Remark
pH	4 - 8	
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	not applicable	
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	not determined	
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	

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.

10.3. Possibility of hazardous reactions

The product is stable under storage at normal ambient temperatures.

10.4. Conditions to avoid

Do not spray on an open flame or other ignition source.

10.5. Incompatible materials

Oxidising substances

10.6. Hazardous decomposition products

The product is stable under storage at normal ambient temperatures.

SECTION 11: Toxicological information

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.

SAFETY DATA SHEET

acc. to 29 CFR 1910.1200 App D

Revision date: Sep 28, 2022

Print date: Jun 27, 2023

Version: 2.1



PoP FLUX 8.9HF-LV

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 damage.

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

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity:

Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

bis(2-(2-methoxyethoxy)ethyl) ether CAS No.: 143-24-8
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

bis(2-(2-methoxyethoxy)ethyl) ether CAS No.: 143-24-8
Results of PBT and vPvB assessment: —
Carboxylic acids, di-, C4-11 CAS No.: 68937-72-4
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: —

SAFETY DATA SHEET

acc. to 29 CFR 1910.1200 App D

Revision date: Sep 28, 2022

Print date: Jun 27, 2023

Version: 2.1



PoP FLUX 8.9HF-LV

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

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

[DE] National regulations

Water hazard class

WGK:

2 - obviously hazardous to water

[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: No chemicals contained.

SECTION 16: Other information, including date of preparation or last revision

16.1. Indication of changes

No data available

SAFETY DATA SHEET

acc. to 29 CFR 1910.1200 App D

Revision date: Sep 28, 2022

Print date: Jun 27, 2023

Version: 2.1



PoP FLUX 8.9HF-LV

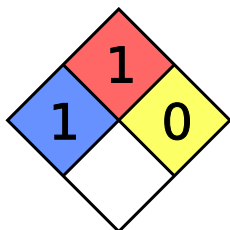
16.2. Abbreviations and acronyms

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
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
EC ₅₀	Effective Concentration 50%
EN	European Standard
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%
NFPA	National Fire Protection Association
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Cooperation and Development
PBT	persistent and bioaccumulative and toxic
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

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	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/

16.4. NFPA Hazard codes



16.5. Relevant H-phrases (number and full text)

Hazard statements	
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H360	May damage fertility or the unborn child.

16.6. Training advice

No data available

16.7. Additional information

No data available