



**INDIUM CORPORATION OF AMERICA®\EUROPE®\ASIA-PACIFIC®
INDIUM CORPORATION (SUZHOU)®**

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: MAF-7

SDS Number: SDS-5382

Revised Date: 25 MAY 2015

Product Use: Industrial Use - Flux used in related soldering applications.

MANUFACTURER:

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2. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY:

Eye
 Inhalation
 Skin
 Ingestion
 NTP
 IARC
 OSHA
Not Listed

Carcinogen listed in

GHS:



Signal Word: Danger

Hazard statement(s)

H314 Causes severe skin burns and eye damage

H410 Very toxic to aquatic life with long lasting effects

Precautionary statement(s)

P233 Keep container tightly closed

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P270 Do not eat, drink or smoke when using this product

P273 Avoid release to the environment

P280 Wear protective gloves/protective clothing/eye protection/face protection

P362 Take off contaminated clothing and wash before reuse

P301 + P314 IF SWALLOWED: Get medical advice/attention if you feel unwell

P302 + P352 IF ON SKIN: Wash with plenty of soap and water

P304 + 341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing

P305 + 351 IF IN EYES: Rinse continuously with water for several minutes (15 mins)

Classification:

Skin corrosion (Category 1B)

Eye irritant (Category 2A)

Acute aquatic toxicity (Category 1)

Chronic aquatic toxicity (Category 1)

POTENTIAL HEALTH EFFECTS:

Eye Contact: May cause burns to the eyes if not removed promptly. May cause eye irritation.

Ingestion: May cause irritation or burns to the gastrointestinal tract.

Inhalation: Heated vapor concentrations may be harmful if inhaled. May cause burns to the respiratory tract.

Skin Contact: May cause skin irritation or burns.

Chronic: Not established. Effects may be delayed.

NOTE: **The Indium Corporation does not recommend, manufacture, market or endorse any of its product's for human consumption.**

3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	% wt	CAS Registry #	PEL mg/m ³	TLV-TWA mg/m ³	TLV-STEL mg/m ³
<u>POLYGLYCOL ETHER</u>	60-80	9038-95-3	N.E.	N.E.	N.E.
<u>CARBOXYLIC ACID</u>	1-10	70248-25-8	N.E.	N.E.	N.E.
<u>ALCOHOLS</u>	10-30	68603-15-6	N.E.	N.E.	N.E.

Symbol: Xi

Risk Phrases: R36/37/38

N.E. = Not established

4. FIRST AID MEASURES

- Eye Contact:** Hold eyelids apart and flush eyes with plenty of tepid water for at least 15 minutes. Seek medical attention if irritation persists.
- Ingestion:** If patient is conscious, ONLY induce vomiting as directed by trained personnel. NEVER give anything by mouth to an unconscious person. Seek medical attention immediately.
- Inhalation:** Remove to fresh air. If not breathing, give artificial respiration or oxygen by trained personnel. Seek immediate medical attention.
- Skin Contact:** Remove contaminated clothing. Wash affected area with soap and water. Wash clothing before reuse. If irritation persists, obtain medical attention.

5. FIRE FIGHTING MEASURES

- Flash Point:** Not established. **Method:** Not established.
- Auto-ignition Temperature:** Not established.
- Flammable Limits:** Limits not established, not flammable.
- Extinguishing Media:** Use extinguishers appropriate for the surrounding fire conditions.
- Special Fire Fighting Procedures:** Firefighters must wear NIOSH approved self-contained breathing apparatus and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

- Spill or Leak Procedures:** Wear a respirator and appropriate Personal Protective (See Exposure Controls/Personal Protective Section). Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Dispose of following all Federal, State and Local regulations. In the EU refer to the Special Waste Regulations.

7. HANDLING AND STORAGE

- Handling Precautions:** Keep containers tightly closed when not in use. Use care to avoid spills. Avoid breathing vapors from heated material. Avoid contact with eyes, skin and clothing. Use with adequate ventilation.
- Storage Precautions:** Store product in tightly capped original containers in a cool, dry area. Keep away from heat and flame. Store away from incompatible materials. Empty containers may be hazardous as

they contain product residue.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Good general ventilation should be sufficient to control airborne levels.

Personal protection:

Eyes: Chemical safety glasses/goggles. Face shield for splash hazards.

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

Skin: Compatible chemical resistant gloves. Protective outer garment, apron. Sleeves as appropriate.

Other: Eyewash fountain in work area. Avoid the use of contact lenses in high fume/splash areas.

Work/Hygienic Practices: Maintain good housekeeping. Clean up spills immediately.

Avoid eating, smoking or drinking in the work area. Wash hands thoroughly with soap and water immediately upon leaving the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Flux **Boiling Point:** Not applicable.

Odor: Mild characteristic odor. **Melting Point:** Not applicable

Specific Gravity: Not applicable. **pH:** Not applicable

Vapor Pressure: Not applicable. **Solubility in Water:** Insoluble

Vapor Density: (air=1) Not applicable.

10. STABILITY AND REACTIVITY

General: Stable.

Conditions to Avoid: Freezing temperatures. High temperatures.

Incompatible Materials: Not established

Hazardous Decomposition / Combustion: Harmful organic fumes and toxic oxide fumes may form at elevated temperatures.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Carcinogenicity: **NTP:** No (National Toxicology Program)
OSHA: No (Occupational Safety and Health Administration)
IARC: No (International Agency for Research on Cancer)

LD50: Not established. **LC50:** Not established.

Other: Product not tested.

Contains an ingredient: Drauze test, rabbit, eye: 100 ul Moderate
 Drauze test, rabbit, skin: 500 ul Severe
 Oral, rat: LD50 = 2100 mg/kg
 Skin, rabbit : LD50 = 5 ml/kg

12. ECOLOGICAL INFORMATION

Product has not been tested.

WGK Germany (Water Hazard Class) Class 2

13. DISPOSAL CONSIDERATION

Waste Disposal Method: Dispose of in accordance with all Federal, State and Local environmental regulations. In Europe follow the Special Waste Regulations.

14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements. Not regulated under US DOT (United States Department of Transportation).

Ground/IATA:



UN 3145, Alkylphenols, N.O.S., 8, PGII

IMDG:



UN 3145, Alkylphenols, N.O.S., 8, PG II (Severe Marine Pollutant)

15. REGULATORY INFORMATION

The information in this Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated hereunder (29 CFR 1910.1200 ET. SEQ.).

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation (CPR).



Canadian WHMIS: contains a substance classified as causing burns.

This product has been classified in accordance with the guidelines set by the Dept of Industrial Health of the Republic of Singapore.

SARA 313 Listing - 40 CFR 372.65 - None

All ingredients are listed on the USEPA TSCA Inventory.

EC Classification, Packaging and Labeling Requirements:

Symbol and Hazard Classification of Product

XI

Risk Phrases:

R36/37/38 Irritating to eyes, respiratory system and skin

Safety Phrases:

S20/21 When using do not eat, drink or smoke

S23 Do not breathe fumes/gas/vapor/spray

S24/25 Avoid contact with skin and eyes

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection

S7 Keep container tightly closed

16. OTHER INFORMATION

HMIS Hazard Rating:	Health:	1
	Fire:	1
	Reactivity:	0

Revised Date: 25 MAY 2015

Prepared by: Nancy Swarts, Indium Corporation of America

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Note: This MSDS may be translated into an international language. If there is any misinterpretation or misunderstanding of any words or phrases that may occur within any translation the ENGLISH language shall always prevail.