



## SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** 1088-D FLUX

**SDS Number:** SDS-4136

**Revised Date:** 17 AUGUST 2018

**Product Use:** INDUSTRIAL USE - SOLDER FLUX

#### MANUFACTURER:

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## 2. HAZARDS IDENTIFICATION

### PRIMARY ROUTES OF ENTRY:

XEye

XInhalation

XSkin

XIngestion

NTP

### Carcinogen listed in

IARC

OSHA

XNot Listed

GHS:



Signal word: Danger

### Hazard statement(s)

H225

Highly flammable liquid and vapour

H301 +H311+ H331

Toxic if swallowed, in contact with skin and if inhaled

H370

Causes damage to organs

### Precautionary statement(s)

P210

Keep away from heat/sparks/open flames/hot surfaces – No smoking

P233

Keep container tightly closed

P240

Ground/Bond container and receiving equipment

P241

Use explosion-proof electrical/ventilating/lightening/equipment

P242

Use only non- sparking tools

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 +P364

Take off contaminated clothing and wash before reuse

P301 + P310

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

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:

Flammable liquids – Category 2

Acute toxicity, oral- Category 3

Acute toxicity, inhalation- Category 3

Acute toxicity, dermal- Category 3

Specific target organ toxicity- single exposure- Category 1

### POTENTIAL HEALTH EFFECTS:

**Eye Contact:** Vapors or liquid may be irritating, liquid may damage eye tissue.

**Ingestion:** May cause persistent nausea, vomiting and abdominal pain. Methanol is toxic if swallowed. May be fatal or cause blindness if swallowed. Effects due to ingestion include: nausea, vomiting, dizziness, weakness, confusion, drowsiness, unconsciousness and may cause convulsions.

**Inhalation:** Vapor may cause headaches and or dizziness. Methanol is toxic by inhalation. May cause irritation.

**Skin Contact:** Prolonged contact may cause irritation. Methanol is toxic by skin absorption. May cause irritation.

**Chronic:** Methanol target organ CNS, eyes, kidney, liver, heart. Methanol is slowly eliminated from the body.



**WARNING:** This product can expose you to chemicals including [methanol] which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

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

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	% wt	CAS Registry #	PEL mg/m <sup>3</sup>	TLV-TWA mg/m <sup>3</sup>	TLV-STEL mg/m <sup>3</sup>
METHANOL	80-85	67-56-1 (US)	260	262	328
		(EU)	-	266	333
		(Canada)	-	262	328
		(Singapore)	262	-	328
		(Mexico)	-	260	310
		(China)	-	25(skin)	50(skin)
SALICYLIC ACID	5	69-72-7	N.E.	N.E.	N.E.
TRIETHANOLAMINE	10	102-71-6	N.E.	N.E.	N.E.
N.E. = Not established		EU = European Exposure Limits			

### 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:** 52 F                      **Method:** Closed Cup
- Auto-ignition Temperature:** 850 F
- Flammable Limits:** Upper: 36 ; Lower 7
- Extinguishing Media:** Dry chemical, Water or CO<sub>2</sub>. Use extinguishers appropriate for the surrounding fire conditions.

**Special Fire Fighting**

**Procedures:** Wear protective clothing and self-contained breathing apparatus. Use water to cool fire exposed containers. Flammable vapors may travel great distances to ignition source and flash back.

**6. ACCIDENTAL RELEASE MEASURES**

**Spill or Leak Procedures:** DO NOT allow material to enter sewer system or waterway. Wear personal protective equipment. Eliminate sources of ignition. Ventilate area in accordance with regulations. Dispose of following all Federal, State and Local regulations. In the EU refer to the Special Waste Regulations.

**7. HANDLING AND STORAGE**

**Handling** Keep containers tightly closed when not in use. Use care to avoid spills. Wear personal protective equipment.

**Precautions:** Ground containers. Keep away from sources of ignition.

**Storage Precautions:** Store product in tightly capped original containers in a cool, dry area. Refer to product label for specific storage temperature requirements. Rotate stock to ensure use before expiration date on the label.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Engineering Controls:** Face velocity >2.1 cubic feet/minute in confined areas. Exhaust ventilation required when using this product.

**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 where airborne concentrations are expected to be elevated.

**Skin:** Compatible chemical resistant gloves. Use gloves such as nitrile, which are compatible with alcohol's.

**Other:** Lab coat, eye-wash 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. Good personal hygiene is essential. 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**

<b>Appearance:</b>	Clear	<b>Boiling Point:</b>	149 F
<b>Odor:</b>	Alcohol odor.	<b>Evaporation Rate:</b>	3.5
<b>Specific Gravity:</b>	0.878	<b>pH:</b>	Neutral
<b>Vapor Pressure:</b>	4.3#/SQ.IN. 100F	<b>Solubility in Water:</b>	Soluble
<b>Vapor Density:</b>	ND	<b>% Volatiles by volume:</b>	ND
<b>LEL</b>	6%	<b>UEL</b>	36%

**10. STABILITY AND REACTIVITY**

<b>General:</b>	Stable.
<b>Conditions to Avoid:</b>	Direct heat, open flames and storage in aluminum.
<b>Incompatible Materials:</b>	Anhydrides, halogens, phosphorus, trichlorides, monomers, aldehydes
<b>Hazardous Decomposition / Combustion:</b>	Carbon dioxide/carbon monoxide and unidentified organics during combustion
<b>Hazardous Polymerization:</b>	Will not occur.

**11. TOXICOLOGICAL INFORMATION**

<b>Carcinogenicity:</b>	National Toxicity Program <b>NTP:</b>	No
	Occupational Safety & Health Administration <b>OSHA:</b>	No
	International Agency for Research on Cancer <b>IARC:</b>	No

LD50 Oral rat – 5,628 mg/kg (methanol)

LC50 Inhalation – rat – 4h – 64000 ppm (methanol)

LD50 dermal – rabbit – 15,800 mg/kg (methanol)

Methyl alcohol may be fatal or cause blindness if swallowed.

Causes damage to organs.

RTECS: See NIOSH (PC 1400000)

**12. ECOLOGICAL INFORMATION**

Product not tested.

LC50 – rainbow trout – 19,000 mg/l – 96h (methanol)

LC50 – carp – 36,000 mg/l – 48h (methanol)

Avoid release to the environment.

**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 international regulations and requirements.



UN1230, Methanol mixture, 3, PG II

Methanol has an RQ = 5,000 lbs

North America Emergency Guide Book – Guide #131

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IATA:

UN1230, Methanol Mixture, 3 (6.1) PG II



IMDG:

UN1230, Methanol mixture, 3 (6.1), PG II

## 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.).

The information in this Material Safety Data Sheet meets the requirements of the EU under Chemicals (Hazard Information and Packaging for Supply) Regulations 1994 (CHIP 2) Regulation 6.

This product has been classified in accordance with the hazard criteria of the Commission Directive 91/155/EEC and EH40.



**WARNING:** This product can expose you to chemicals including [methanol] which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

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



Canadian WHMIS:

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: Methanol

All ingredients are listed on the EPA TSCA Inventory.

This product has been classified under the Mexican regulations NOM-018-STPS-2015 and NOM-010-STPS-2014.

### In China:

This product has been classified using the Chinese Occupational Limit for Hazardous Agents in the Workplace, GBZ2-2007. Decree No. 591: Regulations on the Control over Safety of Hazardous Chemicals  
GB 30000.2-29-2013, Rules for classification and labeling of chemicals. (GHS)  
GB/T 16483-2008, GB/T 17517-2013

This product has been classified in accordance with: Malaysian – OCCUPATIONAL SAFETY AND HEALTH (CLASSIFICATION, LABELING AND SAFETY DATA SHEET OF HAZARDOUS CHEMICALS) REGULATION OCTOBER 2013 – (CLASS).

**16. OTHER INFORMATION**

**HMIS Hazard Rating:**      **Health:**            2  
   **Fire:**                    3  
   **Reactivity:**        0

**Revised Date:**            17 AUGUST 2018

**Prepared by:**            Nancy Swarts, Indium Corporation of America

**Approved by:**            Nancy Swarts, Indium Corporation of America

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