



## SAFETY DATA SHEET

### SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### **1.1 Product Identifier:**

Product Name TACFLUX 089HF

**SDS Number:** SDS- 5049

**Revised Date:** 31 MARCH 2021

**Version** 1.3

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

**Product Use:** Industrial Use (Mixture) - Soldering flux.

#### **1.3 Details of the supplier of the safety data sheet**

#### **MANUFACTURER/SUPPLIER/IMPORTER:**

##### **In America:**

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**1.4 Emergency telephone number****FOR CHEMICAL EMERGENCY ONLY PHONE \*:****CHEMTREC 24 hrs.****USA: 1 (800) 424-9300****Outside USA: +1 (703) 527-3887****In China: Emergency 86+ 4001-204937****France: 33-975181407****In France emergency information (French poison center): INRS (ORFILA) +33 (0) 1 45 42 59 59****Germany: toll free- 0800-181-7059 or (Frankfurt) 49-69643508409****Italy: toll free- 800-789-767****Poland: (Warsaw) 48-223988029****Portugal: 351-308801773****Hungary: (Budapest) 36-18088425****Romania: 40-37-6300026****United Kingdom: (London) 44-870-8200418 and 44-2038073798****\* Used only for spill/leak/fire/exposure/accident****ALL OTHER INQUIRIES: TOLL FREE: +1-800-448-9240 Indium Corporation****SECTION 2. HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture**

Sensitization skin (Category 1B)

Serious eye irritation (Category 2A)

Respiratory sensitizer- Category1B

**2.2 Label elements**

Labeling according to Regulation (EC) No 1272/2008



Signal Word: Danger

**Hazard statement(s)**

H317 May cause an allergic skin reaction

H319 Causes serious eye irritation

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

**Precautionary statement(s)**

P233 Keep container tightly closed

P261 Avoid breathing dust/fume/gas/mist/vapours/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 + 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)

Supplemental Information:

EUH208 Contains rosin. May produce an allergic reaction

**PRIMARY ROUTES OF ENTRY:**

⊗Eye    ⊗Inhalation    ⊗Skin    ⊗Ingestion    NTP    IARC    OSHA    ⊗Not Listed

**Carcinogen listed in**

**2.3 OTHER HAZARDS:**

**POTENTIAL HEALTH EFFECTS:**

- Eye Contact:** Causes serious eye irritation if not promptly removed. Damage to eyes can occur.
- Ingestion:** May cause irritation.
- Inhalation:** Vapors or fumes from this material may cause local irritation to the respiratory system. Rosin may cause occupational asthma.
- Skin Contact:** May cause skin irritation or dermatitis. Rosin may cause skin sensitization.
- Chronic:** Not established.

**SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS**

**3.2 Mixture:**

Components	% wt	CAS Registry #/ EINECS#	
ROSIN	40-45	65997-05-9	H317/H334
POLYGLYCOL ETHER	30-40	9038-95-3	H319
TETRAETHYLENE GLYCOL DIMETHYL ETHER	6.5-7.5	143-24-8	
PROPRIETARY ADDITIVE	15 -25	-	

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**SECTION 4. FIRST AID MEASURES**

**4.1 Description of 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.

#### **4.2 Most important symptoms and effect, both acute and delayed:**

Skin contact may cause irritation. Long term contact may cause dermatitis. Inhalation of decomposed rosin fume may cause irritation or occupational asthma. Eye exposure may cause serious irritation.

#### **4.3 Indication of any immediate medical attention and special treatment needed:**

No specific special treatment information is available on this mixture. Review data provided in this document to understand the hazards when working with the product. No other information is available at this time. Seek medical attention if eye irritation continues after flushing . If respiratory discomfort is evident seek medical advice.

## **SECTION 5. FIRE FIGHTING MEASURES**

### **5.1 Extinguishing Media:**

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

### **5.2 Special hazards arising from the substance or mixture:**

May produce toxic fumes of carbon monoxide if burning .

### **5.3 Advice for Firefighters :**

Fire fighters must wear approved self-contained breathing apparatus and full protective clothing.

### **Further information:**

Material product is not flammable. No other information is available.

## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

### **6.1 Personal precautions, protective equipment and emergency procedures:**

#### **For non-emergency personnel:**

Keep away from the spill. Remove sources of ignition. Keep exhaust ventilation system running. In the event of a fire evacuate area.

#### **For emergency responders:**

Wear safety glasses, gloves when cleaning up any spill. Other equipment may be necessary based on the immediate area and other chemicals unrelated to the product that may be in use. Adequate ventilation should be available. Keep

unnecessary personnel away from area during clean up. If on floor wear foot protection to avoid any direct contamination to shoes and boots. Material is sticky and gluey and may cause a slip/fall hazard for clean-up crew.

**6.2 Environmental Precautions:** Dispose contaminated cloth rags or paper towels following all applicable governmental regulations. Material is non - hazardous. May not have any reclaim value.

### **6.3 Methods and material for containment and cleaning up:**

Spill or leak procedures: Using a spatula, scoop up flux and place into a plastic pail or drum and tightly cap.

**6.4 Reference to other sections:** See Section 8 for exposure levels. See Section 13 for disposal.

## **SECTION 7. HANDLING AND STORAGE**

### **7.1 Precautions for Safe Handling:**

Keep containers tightly closed when not in use. Use care to avoid spills. Use only with production equipment specifically designed for use with flux. Wear appropriate personal protective equipment when working or handling solder paste. Always thoroughly wash your hands after handling this product. DO NOT touch or rub eyes until hands are washed. Do not eat, drink or smoke when handling this product. Utilize exhaust ventilation especially during heating product. General odor and

chemical content require exhaust whenever the container is open.

**7.2 Conditions for Safe Storage, including any incompatibilities:**

**Storage Precautions:** 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.

**7.3 Specific End Use(s):** Soldering applications

**SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**8.1 Control Parameters:**

		<u>CAS#/EINECS#</u>	<u>TWA</u> mg/m <sup>3</sup>	<u>STEL</u> mg/m <sup>3</sup>
<b>ROSIN</b>	40-45	65997-05-9  (EU)	0.05	0.15 (sensitiser)
<b>POLYGLYCOL ETHER</b>	30-40	9038-95-3	N.E.	N.E.
<b>TETRAETHYLENE GLYCOL DIMETHYL ETHER</b>	6.5-7.5	143-24-8	N.E.	N.E.
<b>PROPRIETARY ADDITIVE (CONFIDENTIAL)</b>	15-25	-	N.E.	N.E.

N.E. = Not established      TWA = time weighted average      STEL= short term exposure level

**8.2 Exposure Controls:**

**Engineering Controls:** Use only with production equipment with adequate exhaust ventilation and other safety features specifically designed for chemical use. Use exhaust ventilation when using the product especially while heating product. Air emission control equipment may be necessary based on the local governmental requirements for contaminants entering the atmosphere. Contains organic related compounds.

**Personal Protective Equipment:**

Follow requirements for proper equipment as outlined under 2016/425.

**Eye/face protection:**

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection:**

Handle with CEN approved disposable nitrile gloves (minimum layer thickness: 5 mil), EN 374 Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection:**

The type of protective equipment must be selected according to the concentration and amount of any other substances used at the specific workplace. Handling of flux coated parts requires the use of gloves, eye protection and may require additional protection such as lab coat.

**Respiratory protection:**

Where risk assessment shows respirators are appropriate use a particle respirator type P100 (US) or half face respirator with multi-gas cartridges or type P3 (EN 143) respirator cartridges as a backup to engineering controls.

**Work/Hygienic:**

Maintain good housekeeping. Clean up spills immediately. Wash hands thoroughly with soap and water immediately upon leaving the work area and before eating. Refrain from eating or smoking in work areas.

**Control of environmental exposure:**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties:**

<b>Appearance:</b>	Yellow solid flux type	<b>Boiling Point/Range:</b>	Not determined
<b>Odor:</b>	Mild characteristic odor.	<b>Melting Point/Freezing Point:</b>	Not applicable
<b>Odor Threshold:</b>	Not established	<b>Evaporation Rate:</b>	Not applicable
<b>Specific Gravity:</b>	Not applicable.	<b>pH:</b>	Not applicable
<b>Vapour Pressure:</b>	Not applicable.	<b>Solubility in Water:</b>	Insoluble
<b>Vapour Density:</b>	(air=1) Not applicable.	<b>Partition coefficient:</b>	Not established
<b>Relative Density:</b>	Not established	<b>Flammability:</b>	Not flammable/ignitable
<b>Flash Point:</b>	Not flammable	<b>Method:</b>	EPA Method SW 1030
<b>Auto-ignition Temperature:</b>	Not applicable	<b>Flammable Limits:</b>	Not applicable
<b>UEL/LEL Limits:</b>	Not applicable	<b>Decomposition Temp:</b>	Not applicable
<b>Viscosity:</b>	Not established	<b>Explosive properties:</b>	Not applicable
<b>Oxidizing Properties:</b>	Not established		

\*Indium Corporation has not conducted any testing in order to acquire this data

**9.2 Other Information:** Above data for the whole mixture.

**SECTION 10. STABILITY AND REACTIVITY**

<b>10.1 Reactivity:</b>	Stable.
<b>10.2 Chemical Stability:</b>	Stable
<b>10.3 Possibility of Hazardous Reactions:</b>	Not established
<b>10.4 Conditions To Avoid:</b>	None known
<b>10.5 Incompatible Materials:</b>	Avoid contact with acids, bases or oxidizing agents.

**10.6 Hazardous Decomposition / Combustion:**

Harmful organic fumes and toxic oxide fumes may form at elevated temperatures.

**Hazardous Polymerization:** Will not occur.

## **SECTION 11. TOXICOLOGICAL INFORMATION**

### **11.1 Information on toxicological effects:**

<b><u>Acute toxicity:</u></b>	Not established	<b><u>Mutagenicity:</u></b>	Not established
<b><u>Irritation:</u></b>	Not established	<b><u>Toxicity for Reproduction:</u></b>	Not Established
<b><u>Corrosivity:</u></b>	Not applicable	<b><u>Absence of specific data:</u></b>	None available (not tested)
<b><u>Sensitization:</u></b>	contains rosin		
<b><u>Repeated dose toxicity:</u></b>	Not established		
<b><u>Carcinogenicity:</u></b>	Not established		
<b><u>Likely Routes of Entry:</u></b>	eyes( irritation) /skin (irritation or sensitization) /inhalation (irritation/sensitization) ingestion (may be harmful)		
<b><u>Interactive effects:</u></b>	None known		

### **Symptoms related to the physical, chemical and toxicological characteristics:**

May cause irritation or sensitization by skin and inhalation. May cause eye irritation.

### **Delayed and immediate effects as well as chronic effects from short and long-term exposure:**

Exposure to rosin fume has been known to cause occupational asthma. May cause harm by inhalation and ingestion.

**Mixture verses substance information:** None known

### **Other Information:**

#### **Carcinogenicity Listing:**

**NTP:**No (National Toxicity Program), **OSHA:** No (US Occupational Safety & Health Administration)

**IARC:** No ( U.N. International Agency for Research on Cancer)

## **SECTION 12. ECOLOGICAL INFORMATION**

Product mixtures not tested.

**12.1 Toxicity:** No information available

**12.2 Persistence and degradability:** No information available

**12.3 Bioaccumulative potential:** No information available

**12.4 Mobility in soil:** No information available

**12.5 Results of PBT and vPvB assessments:** No data is available

**12.6 Other adverse effects:** No information is available for mixture. Avoid release to environment.

## **SECTION 13. DISPOSAL CONSIDERATION**

### **13.1 Waste treatment method:**

Dispose of in accordance with environmental regulations. Containerize material and classify according to applicable regulations. No pre-treatment on site is recommended. Do not dispose of down any drain or waterway. Utilize the same personal protective equipment as the user when handling for disposal. Non - hazardous flux.

## **SECTION 14. TRANSPORT INFORMATION**

Transport in accordance with applicable international regulations and requirements.

Flux is non - hazardous.

Not regulated/non- hazardous under US DOT (United States Department of Transportation).

Not regulated/non - hazardous under international shipping requirements.

**14.1 UN number** None

**14.2 UN proper shipping name:** None

**14.3 Transport hazard class(s):** None

**14.4 Packing group:** None

**14.5 Environmental hazards:** None

**Special precautions for user:** None

**Transport in bulk:** Not applicable

## **SECTION 15. REGULATORY INFORMATION**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

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.).

All ingredients are listed on the USEPA TSCA Inventory.

All ingredients are listed on EINECS. Note Rosin was recently listed under the No Longer Polymer List, Notification of New Chemical Substances in Accordance with Directive 67/548/EEC.

Safety data sheet was developed using EC 1907/2006 amended as of February 6, 2020 EU No 453/2010 and information as stated under regulation EC No 1272/2008 CLP Regulation.

Complies with RoHS 2 (2011/65/EU)

Product contains a EU REACH Substance of Very High Concern (SVHC)- tetraethylene glycol dimethyl ether

GHS = Global Harmonized System

CLP= Classification, labeling and packaging

Product does not contain any ozone depleting substances and therefore not subject to EC 2037/2000.

WGK-German Water Classification- 1

RoHS (Restriction of Hazardous Substances): Compliant with RoHS 2 (2011/65/EU). RoHS 3- No phthalates

**15.2 Chemical safety assessment:** None performed for mixture.

## **SECTION 16. OTHER INFORMATION**

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

**Revised Date:** 31 MARCH 2021

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



Changes provided on this SDS were based on the requirements of EU 2020/171 as of amendments February 6, 2020 regarding EC No. 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

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