



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

SAFETY DATA SHEET

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

1.1 **Product Identifier:** NC506

SDS Number: SDS- 4448

Revised Date: 2 MAY 2016

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

Product Use: Industrial Use (Mixture) - Tacflux.

1.3 Details of the supplier of the safety data sheet

MANUFACTURER/SUPPLIER/IMPORTER:

In America:

The Indium Corporation of America
1676 Lincoln Ave., Utica NY 13502
Technical & Safety Information: (315) 853-4900
Safety & SDS Information: nswarts@indium.com
Corporation web page: <http://www.indium.com>

In Europe:

Indium Corporation of Europe
7 Newmarket Ct.
Kingston, Milton Keynes, UK, MK 10 OAG
Information: (normal business hours) +44 [0] 1908 580400
EU Contact: aday@indium.com

In China:

Indium Corporation (Suzhou) Co., Ltd.
No. 428 Xinglong Street
Suzhou Industrial Park
Suchun Industrial Square
Unit No. 14-C
Jiangsu Province, China 215126
Information: (86) 512-6283-4900

In Asia:

Indium Corporation of America
 Asia-Pacific Operations-Singapore
 29 Kian Teck Avenue
 Singapore 628908
 Information: +65 6268-8678

1.4 Emergency telephone number

FOR CHEMICAL EMERGENCY ONLY PHONE *:

CHEMTREC 24 hrs.

USA: 1 (800) 424-9300

Outside USA: +1 (703) 527-3887

*** Used only for spill/leak/fire/exposure/accident**

ALL OTHER INQUIRIES: TOLL FREE: +1-800-448-9240 Indium Corporation

2. HAZARDS IDENTIFICATION**PRIMARY ROUTES OF ENTRY:**

Eye

Inhalation

Skin

Ingestion

NTP

Carcinogen listed in

IARC

OSHA

Not Listed

2.1 Classification of mixture:

Classification according to Regulation (EC) No. 1272/2008:

2.2 Label elements

Signal Word: Warning

Hazard statement(s)

H315 Causes skin irritation
 H317 May cause an allergic skin reaction
 H319 Causes serious eye irritation
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
 H335 May cause respiratory irritation
 EUH208 Contains rosin. May produce an allergic reaction

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
 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 irritant (Category 3)

Eye irritant (Category 2A)

2.3 OTHER HAZARDS:**POTENTIAL HEALTH EFFECTS:****Eye Contact:** Irritating to eyes if not promptly removed causes serious eye irritation.**Ingestion:** May cause irritation.**Inhalation:** Vapors or fumes from this material may cause local irritation to the respiratory system. May be harmful if inhaled. Rosin may cause occupational asthma.**Skin Contact:** May cause skin irritation or dermatitis. Rosin may cause skin sensitization.**Chronic:** Long term exposure to rosin may cause occupational asthma.**3. COMPOSITION / INFORMATION ON INGREDIENTS****3.2 Mixture:**

Components	% wt	CAS Registry #/ EINECS#
ROSIN	49-54	65997-05-9
POLYGLYCOL ETHER	28-33	9038-95-3
ACTIVATORS	8 - 22	-
PROPRIETARY AMINE	0.5 - 4	-

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4. FIRST AID MEASURES**4.1 Description of first aid measures:****Eye Contact:** Hold eyelids apart and flush eyes with plenty of 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.

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.

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

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 rags or absorbents 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.

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 exhaust recommended when using the product.

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): Generally soldering applications

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters:

				<u>TWA</u>	<u>STEL</u>
				mg/m3	mg/m3
		<u>CAS#/EINECS#</u>			
ROSIN	49-54	65997-05-9			
		(EU)	0.05	N.E.	0.15 (sensitiser)
POLYGLYCOL ETHER	28-33	9038-95-3		N.E.	N.E.
ACTIVATORS	8-22.5	-		N.E.	N.E.
PROPRIETARY AMINE	0.5-4	-	N.E.	N.E.	N.E.

N.E. = Not established

8.2 Exposure Controls:

Engineering Controls: Use only 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 protection:

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

Respiratory: An approved or EU compliant CE 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. Recommend a nitrile disposable or other chemical glove.

Other: Lab coat, eye-wash fountain in work area. Avoid the use of contact lenses in high fume areas.

Work/Hygienic Practices:

Maintain good housekeeping. Clean up spills immediately. Do not allow wipes/rags to accumulate in the work area. 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

9.1 Information on basic physical and chemical properties:

Appearance:	Yellow creamy flux	Boiling Point/Range:	Not determined
Odor:	Mild characteristic odor.	Melting Point/Freezing Point:	Not applicable
Odor Threshold:	Not established	Evaporation Rate:	Not applicable
Specific Gravity:	Not available	pH:	Not available
Vapor Pressure:	Not applicable.	Solubility in Water:	Insoluble
Vapor Density:	(air=1) Not applicable.	Partition coefficient:	Not established
Relative Density:	Not established	Flammability:	Not applicable
Flash Point:	> 200C	Method:	Not applicable
Auto-ignition Temperature:	Not applicable	Flammable Limits:	Limits not established
UEL/LEL Limits:	Not applicable	Decomposition Temp:	Not applicable
Viscosity:	Not established	Explosive properties:	Not applicable
Oxidizing Properties:	Not established	Flash Point:	>100C

9.2 Other Information: Above data for the whole mixture.

10. STABILITY AND REACTIVITY

10.1 **Reactivity:** Stable.

10.2 **Chemical Stability:** Stable

10.3 **Possibility of Hazardous Reactions:** Not established

10.4 **Conditions To Avoid:** None known

10.5 **Incompatible Materials:** 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.

10.7 **Hazardous Polymerization:** Will not occur.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

Acute toxicity: Not established

Irritation: Not established

Corrosivity: Not applicable

Mutagenicity: Not established

Toxicity for Reproduction: Not Established

Absence of specific data: None available (not tested)

Sensitization: Not available

Repeated dose toxicity: Not established

Carcinogenicity: Not established for product. Does not contain any substances classified as carcinogens

Likely Routes of Entry: eyes (irritation) /skin (irritation or sensitization) /inhalation (irritation/sensitization) ingestion (may cause irritation)

Interactive effects: None known

Symptoms related to the physical, chemical and toxicological characteristics:

May cause irritation or sensitization by skin and inhalation.

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.

Mixture verses substance information: None known

Other Information:

Carcinogenicity: NTP: No (National Toxicity Program)

Listing OSHA: No (US Occupational Safety & Health Administration)

IARC: No (International Agency for Research on Cancer)

12. ECOLOGICAL INFORMATION

This section is subject to future development. Product mixtures not tested.

12.1 **Toxicity:** No information available

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

12.3 **Bio accumulative 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.

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.

RoHS 2 (Restriction of Hazardous Substances): Compliant with RoHS. (2011/65/EU)

14. TRANSPORT INFORMATION

Transport in accordance with applicable 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.

UN proper shipping name: None

Transport hazard class(s): None

Packing group: None

Environmental hazards: None

Special precautions for user: None

Transport in bulk: Not applicable

15. REGULATORY INFORMATION

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

The information in this Material 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 20 May 2010 EU No 453/2010 and information as stated under regulation EC No 1272/2008 CLP Regulation.

GHS = Global Harmonized System

CLP= Classification, labeling and packaging

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

Chemical safety assessment: None performed for mixture.

16. OTHER INFORMATION

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

Revised Date: 2 MAY 2016

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Changes provided on this SDS were based on the requirements of EU No. 453/2010 of May 20, 2010 regarding amendments to EC No. 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

The information and recommendations contained herein are, to the best of The Indium Corporation of America's knowledge and belief, accurate and reliable as of the date issued. The Indium Corporation of America does not warrant or guarantee their accuracy or reliability, and The Indium Corporation of America shall not be liable for any loss or damage arising out of the user thereof. The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use. If buyer repackages this product, legal counsel should be consulted to insure proper health, safety and other necessary information is included on the container.