



SAFETY DATA SHEET

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 **Product Identifier:** WS-3622

SDS Number: SDS- 4636

Revised Date: 11 MAY 2020

Version 1.0

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

Product Use: Industrial Use (Mixture) – Liquid Flux.

1.3 Details of the supplier of the safety data sheet

MANUFACTURER/SUPPLIER/IMPORTER:

In America:

The Indium Corporation of America®
34 Robinson Rd., Clinton, New York 13323
Technical & Safety Information: (315) 853-4900
Safety & SDS Information: nswarts@indium.com
Corporation web page: <http://www.indium.com>

In Europe:

Indium Corporation of America® (European Operations)
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****China Emergency: 86+ 4008417580***** Used only for spill/leak/fire/exposure/accident****ALL OTHER INQUIRIES: TOLL FREE: +1-800-448-9240 Indium Corporation****SECTION 2. HAZARDS IDENTIFICATION****PRIMARY ROUTES OF ENTRY:**

☒Eye

☒Inhalation

☒Skin

☒Ingestion

NTP

Carcinogen listed in

IARC

OSHA

☒Not Listed

2.1 Classification:

Skin corrosion/irritation- Category 2

Serious eye damage/eye irritation- Category 2A

Specific target organ-single exposure- Category 3 (respiratory system)

2.2 Labeling information

Labeling according to Regulation (EC) No. 1272/2008



Signal Word: Warning

Hazard statement(s)

H315 Causes skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

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)

2.3 OTHER HAZARDS:**POTENTIAL HEALTH EFFECTS:****Eye Contact:** Irritating to the eyes. If not removed promptly, may result in serious eye irritation. Do not allow material to come in contact with the eyes.**Ingestion:** May cause irritation if swallowed.

- Inhalation:** Vapors or fumes from this material may cause local irritation to the respiratory system. Heated vapors may be harmful if inhaled.
- Skin Contact:** Causes skin irritation. Allergic reaction (dermatitis) are possible, especially with repeated or prolonged exposure.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixture:

Components	% wt	CAS Registry #/ EINECS#
POLYGLYCOL ETHER	40-45	9038-95-3
AMIDES	35-40	67700-97-4
ALCOHOL (C6-C12)	15-20	68603-15-6

<http://www.indium.com>

SECTION 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. 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.

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.

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: 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.

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 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): Soldering applications

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters:

		<u>CAS#/EINECS#</u>	<u>TWA</u> mg/m3	<u>STEL</u> mg/m3
POLYGLYCOL ETHER	40-45	9038-95-3	N.E.	N.E.
AMIDES	35-40	67700-97-4	N.E.	N.E.
ALCOHOL (C6-C12)	15-20	68603-15-6	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 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.

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.

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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance:	FLUX- Yellowish	Boiling Point/Range:	Not established
Odor:	Mild characteristic odor.	Melting Point/Freezing Point:	Not applicable
Odor Threshold:	Not established	Evaporation Rate:	Not applicable
Specific Gravity:	Not established	pH:	Not established
Vapour Pressure:	Not established	Solubility in Water:	Water wash
Vapour Density:	(air=1) Not applicable.	Partition coefficient:	Not established
Relative Density:	Not established	Flammability:	Not applicable
Flash Point:	> 100C (212F)	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		

*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

10.1 Reactivity:	Stable.
10.2 Chemical Stability:	Stable
10.3 Possibility of Hazardous Reactions:	Not established
10.4 Conditions To Avoid:	Open flame
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.
Hazardous Polymerization:	Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects:**

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

11.2 Symptoms related to the physical, chemical and toxicological characteristics:

May cause irritation or sensitization by skin. May cause respiratory irritation.

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

None known.

Mixture verses substance information: None known

11.3 Other Information:

Carcinogenicity: NTP: No (National Toxicity Program)
Listing OSHA: No (US Occupational Safety & Health Administration)
 IARC: No (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.

RoHS (Restriction of Hazardous Substances): Compliant with RoHS.

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

14.6 Special precautions for user: None

14.7 Transport in bulk: Not applicable

SECTION 15. REGULATORY INFORMATION

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, 2020 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.

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: 11 MAY 2020

Prepared by: Nancy Swarts, The Indium Corporation of America, nswarts@indium.com

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).

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.