



**THE INDIUM CORPORATION OF AMERICA®
 ®\EUROPE®\ASIA-PACIFIC®
 INDIUM CORPORATION (SUZHOU) ®
 SAFETY DATA SHEET**

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: WS3401-A FLUX

MSDS Number: MSDS-5403M

Revised Date: 6 MAY 2011

Product Use: Industrial Use (mixture) - Flux mixture for solder related use.

MANUFACTURER:

In America:

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2. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY:

Eye Inhalation Skin Ingestion NTP

Carcinogen listed in

IARC OSHA Not Listed

GHS:



Signal Word: Danger

Hazard statement (s)

- H225 Highly flammable liquid and vapor
- H303 May be harmful if swallowed
- H315 Causes skin irritation
- H317 May cause an allergic skin reaction
- H319 Causes serious eye irritation
- H335 May cause respiratory irritation

Precautionary statement (s)

- P210 Keep away from heat/sparks/flames/hot surfaces – No smoking
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray
- P280 Wear protective gloves/eye protection/face protection
- P264 Wash..thoroughly after handling
- P270 Do not eat, drink or smoke when using this product

POTENTIAL HEALTH EFFECTS:

- Eye Contact:** Causes irritation to the eyes. Liquid may cause damage if not removed.
- Ingestion:** May cause irritation. May be harmful if swallowed.
- Inhalation:** May cause irritation. Vapours may cause drowsiness and dizziness.
- Skin Contact:** May cause skin irritation or sensitization and may cause dryness upon contact.

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

3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	% wt	CAS Registry #/EINECS
ISOPROPANOL	10 - 20	67-63-0/200-661-7
POLYGLYCOL ETHER	25 - 35	9038-95-3
PROPRIETARY ACTIVATORS	45 - 65	-

PRODUCT DOES NOT CONTAIN ANY REPORTABLE EU SUBSTANCE OF VERY HIGH CONCERN (SVHC)

Symbol: XI , F

Risk Phrases: R11, R36/37/38 , R43

N.E. = Not established

4. 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.

5. FIRE FIGHTING MEASURES

- Flash Point:** 15C (59F) **Method:** Not available
- Auto-ignition Temperature:** Not established.
- Flammable Limits:** Limits not established. Flammable
- Extinguishing Media:** Use extinguishers appropriate for the surrounding fire conditions.
- Special Fire Fighting Procedures:** Firefighters must wear 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. Ventilate area. Keep unnecessary personnel away from the area. 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. Avoid breathing vapors from heated material. Avoid contact with eyes, skin and clothing. Use with adequate ventilation. Ground containers.
- Precautions:**
- 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. Ambient temperatures.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components	% wt	CAS Registry #	PEL mg/m ³	TLV-TWA mg/m ³	TLV-STEL mg/m ³
ISOPROPANOL	10 - 20	67-63-0 (US)	980	983	1225
(PROPAN-2-OL)		(EU)	-	999	1250
		(Canada)	-	983	1228
		(Mexico)	980	-	1225
		(China)	-	350	700
		(Singapore)	983	-	1230
POLYGLYCOL ETHER	25 - 35	9038-95-3	N.E.	N.E.	N.E.
PROPRIETARY ACTIVATORS	45 - 65	-	N.E.	N.E.	N.E.

Engineering Controls: Good general ventilation or chemical hood should be sufficient to control any contaminate levels especially during heating applications.

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 or if engineering controls are not available.

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

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

Work/Hygenic 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 yellow liquid	Boiling Point:	Not available
Odor:	mild odor characteristic	Melting Point:	Not applicable
Specific Gravity:	1 g/cc	pH:	4 -8
Vapor Pressure:	Not applicable.		
Vapor Density:	(air=1) Not applicable.		

10. STABILITY AND REACTIVITY

General: Stable	Conditions to Avoid:
Incompatible Materials:	Oxidizing agents, acid chlorides, acid anhydrides
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		
	OSHA: No		
	IARC: No		
LD50:	Not established.	LC50:	Not established.

12. ECOLOGICAL INFORMATION

Product not tested. No information available.

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. Material is classified as hazardous (flammable) under US EPA guidelines.

14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements.



UN1219, Isopropanol Mixture, 3, PG II

North American Emergency Guide Book – Guide # 129

15. REGULATORY INFORMATION

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.).

Basic information follows the recommended changes under GHS Globally Harmonized System

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

Canada WHMIS: Class B Division 2 Flammable, D2B Toxic Material Causing Other Toxic Effects (eye irritation in animals).



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

USA SARA 313 Listing - 40 CFR 372.65 - none

EC Classification, Packaging and Labeling Requirements:

Symbol and Hazard Classification of Product

XI

Risk Phrases:

- R11 Flammable
- R36/37/38 Irritating to eyes, respiratory system and skin
- R43 May cause sensitization by skin contact

Safety Phrases:

- S16 Keep away from sources of ignition – No Smoking
- 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

16. OTHER INFORMATION

HMIS Hazard Rating:

Health:	2
Fire:	3
Reactivity:	0

Revised Date: 6 MAY 2011

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