



SAFETY DATA SHEET

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

1.1 Product Identifier: WS 3555 FLUX

SDS Number: SDS-4810

Revised Date: 17 NOVEMBER 2020

Version 1.1

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

Version 1.1

Product Use: INDUSTRIAL USE - LIQUID FLUX (WATER WASH)

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****China Emergency: 86+ 4008417580***** Used only for spill/leak/fire/exposure/accident****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****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:

Flammable liquid- Category 2

Skin irritation- Category 2

Serious eye irritation- Category 2A

Respiratory irritation- Category 3

Specific target organ systemic toxicity (single exposure) – Category 3

2.2 Labeling information

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



Signal Word: Danger

Hazard Statements:

H225 Highly Flammable liquid and vapor

H315 Cause skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

H336 May cause drowsiness or dizziness

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking

P233 Keep container tightly closed

P240 Ground container and receiving equipment

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 + 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: Vapors may be irritating liquid may damage eye tissue, and causes burn or irritates eyes.

Ingestion: May cause irritation if swallowed.

Inhalation: May cause irritation to respiratory system. Vapor may cause headaches and or dizziness.

Skin Contact: Prolonged contact may cause dryness and irritation.

Chronic: Not established.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixture:

Components	% wt	CAS Registry #
ISOPROPANOL (PROPAN-2-OL)	30-35	67-63-0 (US)
ALIPHATIC ALCOHOLS (c16-18)	7-30	68439-49-6
FATTY ACIDS (C6-12)	10-20	67762-36-1
PROPRIETARY	REMAINING	-

<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 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/dermatitis.

Eye exposure may cause 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. Foam, dry chemical, water spray. Product is flammable.

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.

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. Use anti - static tools. Keep sources of ignition away.

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

6.3 Methods and material for containment and cleaning up:

Spill or leak procedures: Absorb all liquids. Throw spill clean - up debris into metal container for proper disposal.

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 flammable materials. 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. Ground containers and receiving equipment. Use spark resistant tools.

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. Keep away from sources of ignition.

7.3 Specific End Use(s): Soldering related applications

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters:

Components	% wt	CAS Registry #	TLV-TWA mg/m ³	TLV-STEL mg/m ³
ISOPROPANOL	30-35	67-63-0 (US)	983	1225
PROPAN-2-OL		(EU)	999	1250
		(Canada)	983	1228
		(Singapore)	-	1230
		(Mexico)	980	1225
		(China)	350	700
ALIPHATIC ALCOHOLS (c16-18)	7-30	68439-49-6	N.E.	N.E.
FATTY ACIDS (C6-12)	10-20	67762-36-1	N.E.	N.E.
PROPRIETARY	REMAINING	-	N.E.	N.E.

TWA = time weighted average

STEL = short term exposure limit

N.E. = Not established

8.2 Exposure Controls:

Engineering Controls: Face velocity >2.1 cubic feet/minute in confined areas. Exhaust ventilation is advised to keep exposures as low as possible. Isopropyl alcohol requires proper ventilation.

Personal protection:

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

Respirator: An approved or compliant air-purifying respirator with a fume/organic chemical cartridge is recommended where airborne concentrations are expected to be elevated. Confined areas may require additional protection.

Skin: Compatible chemical resistant gloves. Use gloves such as nitrile, which are compatible with alcohols.

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.

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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance:	Liquid flux	Boiling Point:	Not available
Odor:	Alcohol odor.	Evaporation Rate:	Not available
Specific Gravity:	Not available	pH:	N/A
Vapor Pressure:	Not available	Solubility in Water:	Not available
Vapor Density:	Not available	Partition coefficient:	Not established

Relative Density:	Not established	Flammability:	Not applicable
Flash Point:	52°F(11C)	Method:	Closed cup
Auto-ignition Temperature:	Not available	Flammable Limits:	Not Available Flammable Product
UEL/LEL Limits:	Not established	Decomposition Temp:	Not applicable
Viscosity:	Not established	Explosive properties:	Not applicable
Oxidizing Properties:	Not established		

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:** Direct heat, open flames and storage in aluminum.
- 10.5 **Incompatible Materials:** Avoid contact with phosphorus, halogens, anhydrides, monomers, aldehydes, trichlorides.
- 10.6 **Hazardous Decomposition / Combustion:** carbon dioxide/carbon monoxide temperatures.
- 10.7 **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		

Likely Routes of Entry: eyes (irritation) /skin (irritation) /inhalation (irritation/ dizziness) ingestion (may be harmful)

Interactive effects: None known

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

May cause irritation to eyes and by inhalation. Light headedness/dizzy.

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

May cause irritation, drowsiness by inhalation.

Mixture verses substance information: None known

Other Information:

Carcinogenicity:	NTP: No (National Toxicity Program)
Listing	OSHA: No (US Occupational Safety & Health Administration)
	IARC: No (U.N. International Agency for Research on Cancer)

SECTION 12. ECOLOGICAL INFORMATION

Product 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.

Isopropyl alcohol: 4396 mg/kg (rat) LD50 oral/ 12800 mg/kg (rat) LD50 dermal/ 72.6 mg/l (rat) 4h LC50 inhalation.

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.

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

SECTION 14. TRANSPORT INFORMATION

Transport in accordance with applicable international regulations and requirements.

Flux is hazardous.

14.1 <u>UN Number</u>	UN 1219
14.2 <u>UN proper shipping name:</u>	Isopropanol
14.3 <u>Transport hazard class(s):</u>	3
14.4 <u>Packing group:</u>	II
14.5 <u>Environmental hazards:</u>	None
14.6 <u>Special precautions for user:</u>	None
14.7 <u>Transport in bulk:</u>	Not applicable

Shipping Name: UN 1219, Isopropanol, 3, PG II (mixture)



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 guidance from EC 1907/2006 amended as of Feb 2020 EU No 453/2010, 2015/830 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

HMIS Hazard Rating:	Health:	2
	Fire:	3
	Physical Hazard:	0

Revised Date: 17 NOVEMBER 2020
Prepared by: Nancy Swarts, Indium Corporation of America
Approved by: Nancy Swarts, Indium Corporation of America

Changes provided on this SDS were based on the requirements of EU No. 453/2010 of Feb 2020 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).

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