



SAFETY DATA SHEET

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

1.1 Product Identifier: 2212 ROSIN FLUX

SDS Number: SDS- HG4042

Revised Date: 5 JULY 2018

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

Product Use: Industrial Use (Mixture) - Rosin 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>

Indium Corporation of America
80 Scott Street
Elk Grove Village, Illinois 60007
Information: (847)439-9135

In Europe:

Indium Corporation of Europe® (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 of mixture:**

Classification – isopropyl alcohol

Eye irritant—(Category 2A)

Flammable liquids – (Category 2)

Specific target organ systemic toxicity (single exposure) – Category 3, Central nervous system

2.2 Label elements

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



Signal Word: Danger

Hazard Statements:

H225	Highly Flammable liquid and vapor
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
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/Bond 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

P305 + 351 for breathing
 IF IN EYES: Rinse continuously with water for several minutes (15 minutes)

2.3 OTHER HAZARDS:

POTENTIAL HEALTH EFFECTS:

- Eye Contact:** Vapors may be irritating, liquid may irritate eye tissue.
- Ingestion:** May cause irritation and damage to mouth, esophagus and gastrointestinal tract.
- Inhalation:** Heated vapors or fumes from this material may cause irritation to respiratory tract. Rosin may cause occupational asthma.
- Skin Contact:** Prolonged contact may cause irritation or dermatitis. Rosin may cause skin sensitization.
- Chronic:** Isopropyl alcohol target organs: nerves/kidneys. Otherwise not established.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixture:

Components	% wt	CAS Registry #/ EINECS#
ISOPROPANOL (IPA/ ISOPROPYL ALCOHOL)	60 - 65	67-63-0/200-661-7
ROSIN	20-25	8050-09-7
ISOBUTYL ALCOHOL	10-15	78-83-1/201-148-0

<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:**

			<u>TWA</u>	<u>STEL</u>
		<u>CAS#/EINECS#</u>	mg/m3	mg/m3
ISOPROPYL ALCOHOL	60-65	67-63-0/200-661-7		
		(UK)	999	1250
		FRANCE	980	-
		BELGIUM	997	1248
		SPAIN	998	1250
		PORTUGAL	200ppm	400ppm
		FINLAND	500	620
		DENMARK	490	-
		AUSTRIA	500	2000
		SWITZERLAND	500	1000
		POLAND	900	1200
		NORWAY	245	-
		IRELAND	200ppm (skin)	-
		GERMANY	500	1000
		BULGARIA	980	1225
		CROATIA	999	1250
		CZECH REPUBLIC	500	1000
		ESTONIA	350	600
		GREECE	980	1225
		HUNGARY	500	2000
		ICELAND	490	980
		LATVIA	350	600
		LITHUANIA	350	600

		ROMANIA	200	500
		RUSSIA	10	50 vapor
		SLOVAK REPUBLIC	200	500
		SLOVENIA	500	2000
		SWEDEN	350	600
ROSIN	20 – 25	8050-09-7 (EU)	N.E. 0.05	N.E. -
ISOBUTYL ALCOHOL	10-15	78-83-1/201-148-0 (UK)	154	231 (15 mins)
		FRANCE	150	-
		BELGIUM	154	-
		SPAIN	154	-
		PORTUGAL	50ppm	-
		FINLAND	150	230
		DENMARK	150	-
		POLAND	100	200
		NORWAY	75 (ceiling limit)	-
		IRELAND	150ppm (skin)	-
		GERMANY	300	300
		ROMANIA	100	200
		SLOVAK REPUBLIC	310	-
		SLOVENIA	310	310
		SWEDEN	150	250

TWA = time weighted average

STEL = short term exposure limit

N.E. = Not established

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. Equipment should be grounded.

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, apron, eye-wash/shower 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 rags or paper towels 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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance:	Amber mixture	Boiling Point/Range:	177F (80C)
Odor:	Alcoholic odor.	Melting Point/Freezing Point:	Not applicable
Odor Threshold:	Not established	Evaporation Rate:	1.7
Specific Gravity:	0.865	pH:	Not applicable
Vapour Pressure:	33 mm HG @68C	Solubility in Water:	Insoluble
Vapour Density:	(air=1) 2.1	Partition coefficient:	Not established
Relative Density:	Not established	Flammability:	Not applicable
Flash Point:	16C/61F	Method:	Not available
Auto-ignition Temperature:	Not available	Flammable Limits:	Limits not established
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. Limited testing information, limited information on liquid flux.

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:** Freezing temperatures and high temperatures, direct heat, open flames.
- 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:

<u>Acute toxicity:</u>	Not established	<u>Mutagenicity:</u>	Not established
<u>Irritation:</u>	Not established	<u>Toxicity for Reproduction:</u>	Not Established
<u>Corrosivity:</u>	Not applicable	<u>Absence of specific data:</u>	None available (not tested)
<u>Sensitization:</u>	Not available		
<u>Repeated dose toxicity:</u>	Not established		
<u>Carcinogenicity:</u>	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 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.

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 UN Number UN 1987

14.2 UN proper shipping name: Alcohols, N.O.S.

- 14.3 **Transport hazard class(s):** 3
- 14.4 **Packing group:** II
- 14.5 **Environmental hazards:** None
- 14.6 **Special precautions for user:** None
- 14.7 **Transport in bulk:** Not applicable



Shipping Name: UN 1987, Alcohols, N.O.S., 3, PG II (isopropanol, isobutyl alcohol)

SECTION 15. REGULATORY INFORMATION

This safety data sheet 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.

Safety data sheet was developed using EC 1907/2006 amended as of 6 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 1005/2009.

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: 5 JULY 2018

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 No. 453/2010 of 6 February 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).

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.