



SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: WAVE SOLDER FLUX GS-5425

SDS Number: SDS-5425

Revised Date: 5 APRIL 2018

Product Use: Industrial Use - Wave Solder Flux

MANUFACTURER:

In America:

The Indium Corporation of America®.

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Singapore 628908

Information: +65 6268-8678

2. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY:

⊗Eye ⊗Inhalation ⊗Skin ⊗Ingestion NTP IARC OSHA ⊗Not Listed

Carcinogen listed in

GHS:



Signal Word: Danger

Hazard statement(s):

H225 Highly flammable liquid and vapor
 H319 Causes serious eye 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
 P242 Use spark resistant tools
 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 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
 P305 +P351 IF IN EYES: Rinse continuously with water for several minutes (15 mins)

Classification:

Flammable Liquid - Category 2
 Serious eye damage/eye irritant - Category 2
 Specific target organ systemic toxicity (single exposure) – Category 3 Central Nervous system

POTENTIAL HEALTH EFFECTS:

Eye Contact: Vapors may be irritating, liquid may damage eye tissue.

Ingestion: May cause persistent nausea, vomiting and abdominal pain.

Inhalation: Vapor may cause headaches and or dizziness. Irritating to respiratory tract

Skin Contact: Prolonged contact may cause irritation.

Chronic: Isopropanol: target organs- liver, kidneys, nerves, gastrointestinal tract

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



WARNING: This product can expose you to chemicals including [1,4-dioxane] which is known to the State of California to cause cancer and can cause birth defects or reproductive harm. For more information go to www.P65Warnings.ca.gov

3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	% wt	CAS Registry #	PEL mg/m ³	TLV-TWA mg/m ³	TLV-STEL mg/m ³
ISOPROPANOL	90-95	67-63-0 (US)	980	983	1225
PROPAN-2-OL		(EU)	-	999	1250
		(Canada)	-	983	1228
		(Singapore)	983	-	1230
		(Mexico)	-	980	1225
		(China)	-	350	700
PROPRIETARY	0 - 5	-	N.E.	N.E.	N.E.
ORGANIC ACID	0 - 5	68603-87-2 (US)	N.E.	N.E.	N.E.

N.E. = Not established

EU = European Exposure Limits

4. 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.

5. FIRE FIGHTING MEASURES

- Flash Point:** 12°C (54°F) **Method:** Closed Cup
- Auto-ignition Temperature:** None
- Flammable Limits:** Upper: 12.7 @77°F; Lower 2 @ 77°F
- Extinguishing Media:** Dry chemical. Use extinguishers appropriate for the surrounding fire conditions.
- Special Fire Fighting Procedures:** Wear protective clothing. Use water to cool fire exposed containers.

6. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: DO NOT allow material to enter sewer system or waterway. Wear personal protective equipment. Eliminate sources of ignition. Ventilate area in accordance with regulations. Dispose of following all Federal, State and Local regulations. In the EU refer to the Special Waste Regulations.

7. HANDLING AND STORAGE

Handling Precautions: Keep containers tightly closed when not in use. Use care to avoid spills. Wear personal protective equipment.

Storage Precautions: Store product in tightly capped original containers in a cool, dry area. Refer to product label for specific storage temperature requirements. Rotate stock to ensure use before expiration date on the label.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Face velocity >2.1 cubic feet/minute in confined areas. Exhaust ventilation recommended.

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 where airborne concentrations are expected to be elevated.

Skin: Compatible chemical resistant gloves.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid, clear

Boiling Point: 79°C (175°F)

Odor: Alcohol odor.

Melting Point: Not applicable

Specific Gravity: 0.815 @ 60° F

pH: 3.2 (as is) 3.6 (1% solution)

Vapor Pressure: 33 mm HG @68°F

Solubility in Water: Soluble

Vapor Density: 2.1(air=1)

10. STABILITY AND REACTIVITY

General: Stable.

Conditions to Avoid: Direct heat, open flames and storage in aluminum.

Incompatible Materials: Anhydrides, halogens, phosphorus, trichlorides, monomers, aldehydes

Hazardous Decomposition / Combustion: Carbon dioxide/carbon monoxide.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Carcinogenicity: NTP: No
OSHA: No

IARC: No

Product contains trace levels of 1, 4 Dioxane CAS# 123-91-1 PEL 100 ppm/TLV 20 ppm

LD50: Not established.**LC50:** Not established.

Isopropanol: LD50 oral- rat – 5,045 mg/kg

LC50 inhalation – rat – 8h – 16000 ppm

LD50 dermal – rabbit – 12,800 mg/kg RTECS: NT8050000

12. ECOLOGICAL INFORMATION

This section is subject to future development.

Product not tested.

Isopropanol: Toxicity to fish – LC50 –Pimephales promelas (fathead minnow) – 9,640mg/l – 96h

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. Generally Classified as hazardous waste. Possible fuels blending option. Reclaim or recycle where possible.

14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements. Hazardous material:

UN1219, Isopropanol, 3, PGII



Flammable label North American Emergency Guide Book : Guide #129

Marine pollutant: No

15. REGULATORY INFORMATION

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.).

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

Canadian 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.

This product has been classified in accordance with the Mexican guidelines, NOM-018-STPS-2015 and NOM-010-STPS-2014.

Malaysia:

This product has been classified in accordance with: Malaysian – OCCUPATIONAL SAFETY AND HEALTH (CLASSIFICATION, LABELING AND SAFETY DATA SHEET OF HAZARDOUS CHEMICALS) REGULATION OCTOBER 2013 – (CLASS). (GHS)

In China:

Decree No. 591: Regulations on the Control over Safety of Hazardous Chemicals

GB 30000.2-29-2013, Rules for classification and labeling of chemicals. (GHS)

GB/T 16483-2008, GB/T 17517-2013

This product has been classified using the Chinese Occupational Limit for Hazardous Agents in the Workplace, GBZ2-2007.

All ingredients are listed on the China Chemical Inventory



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SARA 313 Listing - 40 CFR 372.65: trace levels of 1, 4 Dioxane

All ingredients are listed on the EPA TSCA Inventory.

Ingredients are listed on the Canadian Domestic Substance List.

16. OTHER INFORMATION

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

Revised Date: 5 APRIL 2018

Prepared by: Nancy Swarts, Indium Corporation of America

Approved by: Nancy Swarts, Indium Corporation of America

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