



## SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** WAVE FLUX 3592-35

**SDS Number:** SDS-4030

**Revised Date:** 13 AUGUST 2018

**Product Use:** Industrial Use - Flux

#### MANUFACTURER:

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## 2. HAZARDS IDENTIFICATION

### 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/spark/open flames/hot surfaces – No Smoking
- P233 Keep container 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 cautiously 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

**PRIMARY ROUTES OF ENTRY:**

- Eye
- Inhalation
- Skin
- Ingestion

**Carcinogen listed in**

- NTP
- IARC
- OSHA
- Not Listed

**POTENTIAL HEALTH EFFECTS:**

- Eye Contact:** Vapors may be irritating, liquid may damage eye tissue.
- Ingestion:** May cause persistent nausea, vomiting and abdominal pain. Irritating to digestive tract.
- Inhalation:** Vapor may cause headaches and or dizziness. Avoid inhalation of vapors. Irritating to respiratory tract.
- Skin Contact:** Prolonged contact may cause irritation.
- Chronic:** Over exposure to vapors may be harmful. Not established.



**WARNING:** This product can expose you to chemicals including [1,4 dioxane] which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

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

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	% wt	CAS Registry #	PEL mg/m <sup>3</sup>	TLV-TWA mg/m <sup>3</sup>	TLV-STEL mg/m <sup>3</sup>
ISOPROPANOL ( PROPAN-2-OL)	80-90	67-63-0 (US)	980	983	1225
		(EU)	-	999	1250
		(Canada)	-	983	1228
		(Mexico)	980	-	1225
		(China)	-	350	700
		(Singapore)	983	-	1230
PROPRIETARY	10-20	-	N.E.	N.E.	N.E.

N.E. = Not established

### 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:** 750 F
- Flammable Limits:** Upper: 12 @77°F; Lower 2 @ 77°F
- Extinguishing Media:** Foam/Water. Use extinguishers appropriate for the surrounding fire conditions.
- Special Fire Fighting Procedures:** Wear protective clothing and self contained breathing apparatus. Use water to cool fire exposed containers. Flammable vapors may travel great distances to ignition source and flash back.

## 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. Ground containers when in use. Ground containers.

**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. Overall general exhaust ventilation recommended. Use ventilation to keep exposures as low as possible.

### Personal protection:

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

**Respirator:** An authority approved or EU compliant CE marked air-purifying respirator with a fume/organic Chemical cartridge is recommended where airborne concentrations are expected to be elevated. Use respiratory protection in confined areas. Air purifying respirators will offer no protection in oxygen deficient areas. Ensure that the protection factors of the respirator are not exceeded.

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

**Other:** Lab coat, eye-wash fountain/shower 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

<b>Appearance:</b>	Colorless	<b>Boiling Point:</b>	80°C (175°F)
<b>Odor:</b>	Alcohol odor.	<b>Evaporation Rate:</b>	1.7
<b>Specific Gravity:</b>	0.834 @ 60° F	<b>pH:</b>	4.0
<b>Vapor Pressure:</b>	33 mm HG @ 68 F	<b>Solubility in Water:</b>	Soluble
<b>Vapor Density:</b>	2.1 (air=1)	<b>% Volatiles by volume:</b>	90

**10. STABILITY AND REACTIVITY**

<b>General:</b>	Stable.
<b>Conditions to Avoid:</b>	Direct heat, open flames and storage in aluminum.
<b>Incompatible Materials:</b>	Anhydrides, halogens, phosphorus, trichlorides, monomers, aldehydes
<b>Hazardous Decomposition / Combustion:</b>	Carbon dioxide/carbon monoxide.
<b>Hazardous Polymerization:</b>	Will not occur.

**11. TOXICOLOGICAL INFORMATION**

<b>Carcinogenicity:</b>	National Toxicity Program <b>NTP:</b>	No
	Occupational Safety & Health Administration <b>OSHA:</b>	No
	International Agency for Research on Cancer <b>IARC:</b>	No

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

Oral LD50 (isopropyl alcohol)

LD50 Oral- rat- 5,045 mg/kg

Inhalation LC50 (isopropyl alcohol)

LC50 inhalation-rat-8h-16000 ppm

Dermal LD50

LD50 – Dermal- rabbit-12,800 mg/kg

RTECS: Isopropyl alcohol NT8050000

**12. ECOLOGICAL INFORMATION**

Product not tested.

LC50-Pimephales promelas (fathead minnow)- 9,640 mg/l – 96h (isopropyl alcohol)

EC50-Daphnia magna (water flea) – 5,102 mg/l – 24h (isopropyl alcohol)

**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.

**14. TRANSPORT INFORMATION**

Transport in accordance with applicable international regulations and requirements.



UN1219, Isopropanol, 3, PG II

North American Emergency Guide Book – Guide # 129    Flammable label

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.).



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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.

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



Canadian WHMIS:

Class B2 Flammable Liquid 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 Mexican regulations: 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).

Regulatory Information China:

GB/T 16483-2008, GB/T 17519-2013, Safety Data Sheets for Chemical Products

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

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

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

## 16. OTHER INFORMATION

<b>HMIS Hazard Rating:</b>	<b>Health:</b>	2
	<b>Fire:</b>	3
	<b>Physical Hazard:</b>	0

**Revised Date:** 13 AUGUST 2018

**Prepared by:** Nancy Swarts, Indium Corporation of America

**Approved by:** Nancy Swarts, Indium Corporation of America

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