



SAFETY DATA SHEET

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

1.1 Product Identifier 1010 FLUX

SDS Number: SDS-4156

Revised Date: 2 MAY 2018

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

Product Use: Industrial Use - Wave Solder Flux (mixture)

1.3 Details of the supplier of the safety data sheet

MANUFACTURER/SUPPLIER/IMPORTER:

In America:

The Indium Corporation of America®
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Safety & SDS Information: nswarts@indium.com
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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***** Used only for spill/leak/fire/exposure/accident****ALL OTHER INQUIRIES: TOLL FREE: +1-800-448-9240 Indium Corporation****SECTION 2. HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture**

Regulation (EU Directive 67/548/EEC or 1999/45/EC).

2.2 Label elements

Pictogram



Signal word: Danger

Hazard statement(s)

H314 Causes severe skin burns and eye damage

H335 May cause respiratory irritation

Precautionary statement(s)

P233 Keep container tightly closed

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)

Classification:

Skin corrosion – Category 1B

Serious Eye Damage – Category 1

PRIMARY ROUTES OF ENTRY:

⊗Eye ⊗Inhalation ⊗Skin ⊗Ingestion

Carcinogen listed in

NTP IARC OSHA ⊗Not Listed

2.3 Other hazards**POTENTIAL HEALTH EFFECTS:****Eye Contact:** Vapors may be irritating, liquid may damage eye tissue.**Ingestion:** May cause irritation.

Inhalation:	Vapors may cause irritation.
Skin Contact:	May cause irritation. Prolonged contact may cause severe irritation and/or burns.
Chronic:	Not established.
NOTE:	The Indium Corporation does not recommend, manufacture, market or endorse any of its products for human consumption.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixture

Components	% wt	CAS Registry #
HYDROCHLORIC ACID (MINERAL ACID)	2-5	7647-01-0(US)
WATER	68-75	7732-18-5
SURFACTANT	10-20	-

<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 immediately.

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. Acid may cause burns to the skin, proper flushing is important.

4.2 Most important symptoms and effect, both acute and delayed:

Skin contact may cause irritation. Inhalation may cause irritation. Eye exposure may cause irritation.

4.3 Indication of any immediate medical attention and special treatment needed:

No specific special treatment information is available. 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 immediate medical advice.

SECTION 5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media: Use extinguishers appropriate for the surrounding fire conditions. Water, CO2, foam

media.

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.

Material product is not flammable. 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. Do not allow material, as is, to enter sewer system or waterway. Product has a low pH, which may be prohibited for direct discharge.

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.

Environmental Precautions: Dispose contaminated cloth rags or paper towels following all applicable governmental regulations. Material is non - hazardous. May not have any reclaim value. Product contains a substance classified as a Marine Pollutant.

Methods and material for containment and cleaning up:

Spill or leak procedures: Using a spatula, scoop up flux and place into a plastic pail or drum and tightly cap.

6.2 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. 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.

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.

7.3 Specific End Use(s): Soldering 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
HYDROCHLORIC ACID	2-5	7647-01-0(UK)		2	8
(MINERAL ACID)		(EU)		8	15
		(France)		-	7.6
		(Belgium)		8	15
		(Spain)		7.6	15
		(Portugal)		-	-
		(The Netherlands)		8	15
		(Finland)		-	7.6
		(Denmark)		-	7(ceiling)
		(Austria)		8	15
		(Poland)		5	-
		(Ireland)		8	15
		(Italy)		8	15
		(Germany)		3	-
		(Bulgaria)		8	15
		(Croatia)		8	15
		(Cyprus)		8	15
		(Greece)		7	7
		(Hungary)		8	15
		(Latvia)		8	15
		(Lithuania)		8	15
		(Luxembourg)		8	15
		(Malta)		8	15
		(Romania)		8	15
		(Slovak Republic)		8	15(ceiling)
		(Slovenia)		8	16
		(Czech Republic)		8	15(ceiling)
		(Estonia)		8	15
WATER	68-75	7732-18-5	N.E.	N.E.	N.E.
SURFACTANT	10-20	-	N.E.	N.E.	N.E.

N.E. = Not established

8.2 Exposure Controls:

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

Personal protection:

Eyes: Chemical safety glasses/goggles and face shield for splash hazard operations.

Respirator: An approved or compliant marked air-purifying respirator with a fume/acid chemical cartridge is recommended where airborne concentrations are expected to be elevated.

Skin: Compatible chemical resistant gloves for exposure to hydrochloric acid solution. Product is corrosive.

Other: Lab coat, eye-wash fountain in work area, sleeve protection and apron in splash situations. Avoid the use of contact lenses in high fume areas.

Work/Hygenic 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:	Clear to straw	Boiling Point:	212°F
Odor:	Mild odor.	Melting Point:	Not determined
Specific Gravity:	1.058 +/- 0.02 @60F	pH:	Below 2 (varies between 1- 2)
Vapor Pressure:	23.7 mm HG @ 25C	Solubility in Water:	Soluble
Vapor Density:	Not determined	Volatiles:	70%
Relative Density:	Not established	Flammability:	Not established
Flash Point:	Not flammable		
Auto-ignition Temperature:	Not applicable	Flammable Limits:	Not applicable
UEL/LEL Limits:	Not applicable	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: Direct heat, open flames and storage in aluminum.

10.4 Conditions To Avoid: High temperatures

10.5 Incompatible Materials: Strong alkali

10.6 Hazardous Decomposition / Combustion: Carbon dioxide/carbon monoxide.

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		
<u>Likely Routes of Entry:</u>	eyes(irritation) /skin (irritation or sensitization) /inhalation (irritation/sensitization) ingestion (may be harmful)		
<u>Interactive effects:</u>	None known		

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

May cause irritation or sensitization by skin and inhalation. May cause eye irritation.

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

May cause irritation by inhalation and ingestion.

Mixture verses substance information: None known

Other Information:**Carcinogenicity Listing:**

NTP:No (National Toxicity Program), **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.

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. Non - hazardous flux.

RoHS (Restriction of Hazardous Substances): Compliant with RoHS 2 (2011/65/EU).

SECTION 14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements.

Shipping Name: **UN1789, Hydrochloric acid, 8, PG III**

In USA: **Must follow the hydrochloric acid proper packaging requirements as stated in 49 CFR 173.162 (Department of Transportation regulations).**



14.1 UN Number: None

14.2 UN proper shipping name: UN1789

14.3 Transport hazard class(s): Corrosive

14.4 Packing group: III

14.5 Environmental hazards: None

14.6 Special precautions for user: This material requires specific packaging. If outside of the USA review applicable country/international shipping and packaging instructions prior to you re-shipping.

14.7 Transport in bulk: Not applicable

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 20 May 2010 EU No 453/2010 and information as stated under regulation EC No 1272/2008 CLP Regulation.

Complies with RoHS 2 (2011/65/EU)

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:	0
	Reactivity:	0

Revised Date: 2 MAY 2018

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Approved by: Nancy Swarts, Indium Corporation of America

Changes provided on this SDS were based on the requirements of EU No. 453/2010 of May 20, 2010 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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