



SAFETY DATA SHEET

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

1.1 Product Identifier: NF 260

SDS Number: SDS-4322

Revised Date: 4 DECEMBER 2017

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

Product Use: INDUSTRIAL USE - NO-FLOW UNDERFILL FLUX MATERIAL

1.3 Details of the supplier of the safety data sheet

MANUFACTURER/SUPLLIER/IMPORTER:

In America:

The Indium Corporation of America
34 Robinson Road, Clinton NY 13323
Technical & Safety Information: (315) 853-4900
Safety & SDS Information: nswarts@indium.com
Corporation webpage: <http://www.indium.com>

In Europe:

Indium Corporation of Europe
7 Newmarket Ct.
Kingston, Milton Keynes, UK, MK 10 OAG
Information: +44 [0] 1908 580400

In Asia:

The Indium Corporation of America
Asia-Pacific Operations-Singapore
29 Kian Teck Avenue
Singapore 628908
Information: +65 6268-8678

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

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

PRIMARY ROUTES OF ENTRY:

⊕Eye

⊕Inhalation

⊕Skin

Carcinogen listed in

⊕Ingestion

NTP

IARC

OSHA

⊕Not Listed

2.1 Classification of substance or mixture: (mixture)

2.2 Label Elements

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

GHS:



Signal Word: Warning

Hazard statement(s)

- H303 May be harmful if swallowed
- H315 Causes skin irritation
- H317 May cause an allergic skin reaction
- H318 Causes serious eye damage
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

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 +364 Take off contaminated clothing and wash before reuse
- P301 +P312 IF SWALLOWED: Call POISON CENTER or doctor/physician 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:

- Skin irritant- Category 2
- Skin sensitization- Category 1B
- Respiratory sensitization- Category 1B
- Eye irritant- Category 2A

2.3 OTHER HAZARDS:

POTENTIAL HEALTH EFFECTS:

Eye Contact: Excessive redness and swelling of the conjunctiva may occur. Causes irritation, experienced as stinging and discomfort or pain.

Ingestion: Ingestion may irritate the digestive tract. May be harmful.

Inhalation: May cause irritation if heated, otherwise harmful health effects are not expected at ambient temperatures. Heated product may be harmful if inhaled.

Skin Contact: Brief contact may cause slight irritation with itching and local redness. Long term exposure may cause dermatitis. May cause skin sensitization. Epoxy systems are known to cause de-fatting and drying of the skin. Heating of epoxy may cause irritation or sensitization.

Chronic: Prolonged or repeated overexposure to mist or vapor generated at high temperatures may result in the inhalation of harmful amounts of material.

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

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixture:

Components	% wt	CAS Registry #
EPOXY RESINS	45-52	-
HARDENER	42-49	19438-60-9
PROPRIETARY INTERMEDIATES	2-15	-
PROPRIETARY NONHAZARDOUS INGREDIENTS	1- 5	-

N.E. = Not established

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. Long term contact may cause dermatitis. Eye exposure may cause serious 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. 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.

5.4 Further information:

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.

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. If on floor wear foot protection to avoid any direct contamination to shoes and boots. Material is sticky and gluey and may cause a slip/fall hazard for clean-up crew.

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

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 #	PEL mg/m ³	TLV-TWA mg/m ³	TLV-STEL mg/m ³
EPOXY RESINS	45-52	-	N.E.	N.E.	N.E.
HARDENER	42-49	19438-60-9	N.E.	N.E.	N.E.
PROPRIETARY INTERMEDIATES	2-15	-	N.E.	N.E.	N.E.
PROPRIETARY NONHAZARDOUS INGREDIENTS	1- 5	-	N.E.	N.E.	N.E.

N.E. = Not established TWA = time weighted average STEL= short term exposure level

8.2 Exposure Controls:

Engineering Controls: Good general exhaust ventilation should be sufficient to control airborne levels and keep exposure levels to as low as possible. Avoid breathing fumes. If ventilation is not adequate or if not available respiratory protection may be required when heating product.

Personal protection:

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

Respirator: A NIOSH or authority 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 to protect from direct contact with product. Sleeves and apron as appropriate.

Other: Eyewash fountain in work area. Avoid the use of contact lenses in high fume areas.

Work/Hygienic Practices: Maintain good housekeeping. Clean up spills immediately. Avoid eating, smoking or drinking in the work area. Wash hands and arms thoroughly with soap and water immediately upon leaving the work area. If skin has come in contact with product wash immediately to avoid any possible irritation. To reduce or eliminate skin exposure immediately remove any contaminated clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance:	Pinkish/Gray	Boiling Point/Range:	Not determined
Odor:	Slight characteristic odor.	Melting Point/Freezing Point:	Not applicable
Odor Threshold:	Not established	Evaporation Rate:	Not applicable
Specific Gravity:	Not applicable.	pH:	Not applicable
Vapour Pressure:	Not applicable.	Solubility in Water:	Insoluble
Vapour Density:	(air=1) Not applicable.	Partition coefficient:	Not established
Relative Density:	Not established	Flammability:	Not flammable/ignitable
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: Not established

10.4 Conditions To Avoid: Freezing temperatures. High temperatures. Acids/bases/oxidizers.

10.5 Incompatible Materials: Not established

10.6 Hazardous Decomposition / Combustion: Harmful organic fumes and toxic oxide fumes may form at elevated temperatures.

Hazardous Polymerization: Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

Acute toxicity: Not established

Irritation: Not established

Corrosivity: Not applicable

Sensitization: Not available

Repeated dose toxicity: Not established

Carcinogenicity: Not established

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

Interactive effects: None known

Mutagenicity: Not established

Toxicity for Reproduction: Not Established

Absence of specific data: None available (not tested)

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.

Flux is non - hazardous.

Not regulated/non- hazardous under US DOT (United States Department of Transportation).

Not regulated/non - hazardous under international shipping requirements.(IATA/IMDG)

14.1 UN number None

14.2 UN proper shipping name: None

14.3 Transport hazard class(s): None

14.4 Packing group: None

14.5 Environmental hazards: None

14.6 Special precautions for user: None

14.7 Transport in bulk: Not applicable

SECTION 15. REGULATORY INFORMATION

This safety datasheet 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:	1
	Reactivity:	0

Revised Date: 4 DECEMBER 2017

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 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).

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.