SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: 5RMA-RC FLUX
SDS Number: SDS-6114
Product Use: Industrial Use - Flux
Revised Date: 19 MARCH 2018

MANUFACTURER:

In America:
The Indium Corporation of America®
34 Robinson Rd., Clinton, New York 13323
Information: (315) 853-4900
nswarts@indium.com

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

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

EMERGENCY PHONE:
CHEMTREC 24 hrs.
USA: 1 (800) 424-9300
Outside USA: +1 (703) 527-3887

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
2. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY: ☒Eye ☒Inhalation ☒Skin ☒Ingestion  
Carcinogen listed in NTP IARC OSHA ☒Not Listed

GHS:

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
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 minutes)

Classification:
Eye irritant – (Category 2A)
Flammable liquids - (Category 2)
Specific target organ systemic toxicity (single exposure) – (Category 3), Central nervous system
Skin sensitizer- Category 1B
Respiratory sensitizer- Category 1B

POTENTIAL HEALTH EFFECTS:

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

Ingestion: May result in gastric disturbances such as nausea and vomiting. Irritating to digestive tract.

Inhalation: May cause throat irritation, headache or dizziness. Irritating to respiratory tract. Rosin may cause occupational asthma.

Skin Contact: Prolonged contact may cause irritation or dermatitis. Rosin may cause skin sensitization.
Chronic: Not established.

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

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>% wt</th>
<th>CAS Registry #/EINECS#</th>
<th>PEL mg/m³</th>
<th>TLV-TWA mg/m³</th>
<th>TLV-STEL mg/m³</th>
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<tbody>
<tr>
<td>ISOPROPYL ALCOHOL</td>
<td>60-65</td>
<td>67-63-0/200-661-7 (US)</td>
<td>980</td>
<td>983</td>
<td>1230</td>
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<td>(EU)</td>
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<td>999</td>
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<td>983</td>
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<td>(Singapore)</td>
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<td>1230</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Mexico)</td>
<td></td>
<td>980</td>
<td>1225</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(China)</td>
<td></td>
<td>350</td>
<td>700</td>
</tr>
<tr>
<td>ROSIN</td>
<td>20-25</td>
<td>8050-09-7</td>
<td>N.E</td>
<td>N.E</td>
<td>N.E.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(EU)</td>
<td>0.05</td>
<td>-</td>
<td>0.15</td>
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<tr>
<td>ISOBUTYL ALCOHOL</td>
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<td>78-83-1/201-148-0</td>
<td>300</td>
<td>152</td>
<td>-</td>
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<tr>
<td></td>
<td></td>
<td>(Canada)</td>
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<td>152</td>
<td>227</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Singapore)</td>
<td>152</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Mexico)</td>
<td></td>
<td>150</td>
<td>225</td>
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</tbody>
</table>

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: 61F  Method: TCC
Auto-ignition Temperature: 750 F
Flammable Limits: Upper limit 12 @ 77F. Lower limit 2 @ 77 F.
Extinguishing Media: Use extinguishers appropriate for the surrounding fire conditions.
Special Fire Fighting Procedures: Standard fire fighting equipment. Water spray/CO2

6. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: Do not allow material to enter sewer system or waterway. Wear personal protective equipment, such as gloves and depending on the quantity a respirator with organic cartridges may be required. Clean up by absorption. Eliminate sources of ignition. Keep unnecessary personnel away. Put clean-up materials in a properly labeled metal drum. 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 from static charge.

Storage Precautions: Store product in tightly capped original containers in a cool, dry area away from sources of ignition. 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 is recommended to keep exposure limits as low as possible.

Personal protection:
Eyes: Chemical safety glasses/goggles. Face shield for splash hazards.
Respirator: An 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, eyewash 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Amber</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>177°F</td>
</tr>
<tr>
<td>Odor</td>
<td>Alcoholic</td>
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<tr>
<td>Melting Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.865</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>33 mm HG @68°C</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>2.1</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>1.7</td>
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<tr>
<td>Volatile by Volume</td>
<td>75%</td>
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10. STABILITY AND REACTIVITY

<table>
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<tr>
<th>Condition</th>
<th>Description</th>
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<tr>
<td>General</td>
<td>Stable.</td>
</tr>
<tr>
<td>Conditions to Avoid</td>
<td>Direct heat, open flames and storage in aluminum.</td>
</tr>
<tr>
<td>Incompatible Materials</td>
<td>phosphorus, halogens, anhydrides, monomers, aldehydes, trichlorides</td>
</tr>
<tr>
<td>Hazardous Decomposition /</td>
<td>Carbon dioxide/carbon monoxide.</td>
</tr>
<tr>
<td>Combustion</td>
<td></td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>Will not occur.</td>
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11. TOXICOLOGICAL INFORMATION

<table>
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<tr>
<th>Carcinogenicity</th>
<th>NTP: No</th>
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<tbody>
<tr>
<td>OSHA: No</td>
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</tr>
<tr>
<td>IARC: No</td>
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<tr>
<td>LD50: Not established.</td>
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<tr>
<td>LC50: Not established.</td>
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</table>

12. ECOLOGICAL INFORMATION

| Product not tested. |

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 regulations and requirements. |
| Shipping: UN 1987, Alcohols, N.O.S., 3, PG II (isopropanol, isobutyl alcohol) |
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.).

SARA 313 Listing - 40 CFR 372.65: None

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).

WHMIS: Class B Flammable Division 2 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 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). (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
16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>HMIS Hazard Rating:</th>
<th>Health:</th>
<th>2</th>
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<tbody>
<tr>
<td></td>
<td>Fire:</td>
<td>3</td>
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<tr>
<td></td>
<td>Reactivity:</td>
<td>0</td>
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</table>

Revised Date: 19 MARCH 2018

Prepared by: Nancy Swarts, Indium Corporation of America

Approved by: Nancy Swarts, Indium Corporation of America

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