SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: #BB-4 WAVE OIL
SDS Number: SDS-HG4045
Product Use: INDUSTRIAL USE - SOLDERING OIL

Revised Date: 21 DECEMBER 2018

MANUFACTURER:

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Information: (86) 512-6283-4900

http://www.indium.com
2. HAZARDS IDENTIFICATION

**PRIMARY ROUTES OF ENTRY:**
- Eye
- Inhalation
- Skin
- Ingestion

Carcinogen listed in
- NTP
- IARC
- OSHA
- Not Listed

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)

**POTENTIAL HEALTH EFFECTS:**

**Eye Contact:** Vapors/liquid may be irritating.

**Ingestion:** May result in gastric disturbances, irritation and nausea.

**Inhalation:** May cause irritation. High temperatures oils/vapors/mist may cause irritation to nose, throat and upper respiratory system.

**Skin Contact:** May cause irritation. Prolonged or repeated contact may cause dermatitis

**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 #</th>
<th>PEL mg/m³</th>
<th>TLV-TWA mg/m³</th>
<th>TLV-STEL mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>PETROLEUM OIL</td>
<td>90-95</td>
<td>64742-57-0</td>
<td>N.E.</td>
<td>N.E.</td>
<td>5(mist)</td>
</tr>
<tr>
<td>PROPRIETARY ACID</td>
<td>5-10</td>
<td>-</td>
<td>N.E.</td>
<td>N.E</td>
<td>N.E.</td>
</tr>
</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: 550 F  Method: Not established.
Auto-ignition Temperature: 750 F
Flammable Limits: Limits Upper 7, Lower 0.9
Extinguishing Media: Use extinguishers appropriate for the surrounding fire conditions. Water Fog/Dry chemical.
Special Fire Fighting Procedures: Wear appropriate firefighting gear.

6. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: DO NOT allow material to enter sewer system or waterway. Dispose of following all Federal, State and Local 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. Recommend personal protective equipment. Ventilation should be sufficient to keep exposures as low as possible.

Personal protection:
Eyes: Chemical safety glasses/goggles. Face shield for splash hazards.
Respirator: A NIOSH 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 and can’t be controlled by ventilation.
Skin: Compatible chemical resistant gloves.
Other: Lab coat, eye-wash fountain in work area. Avoid the use of contact lenses in high fume 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>Dark, amber</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>&gt;600 F</td>
</tr>
<tr>
<td>Odor</td>
<td>Petroleum odor.</td>
</tr>
<tr>
<td>Melting Point</td>
<td>NA</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.889 @60F</td>
</tr>
<tr>
<td>pH</td>
<td>Neutral</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>&lt;0.1 mm Hg</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>&gt;10</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Volatiles by Volume</td>
<td>5</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

- **General:** Stable.
- **Conditions to Avoid:** Direct heat, open flames and storage in aluminum.
- **Incompatible Materials:** Strong alkali.
- **Hazardous Decomposition / Combustion:** Carbon dioxide/carbon monoxide.
- **Hazardous Polymerization:** Will not occur.

11. TOXICOLOGICAL INFORMATION

- **Carcinogenicity:**
  - NTP: No
  - OSHA: No
  - IARC: No
- **LD50:** Not established.
- **LC50:** Not established.

12. ECOLOGICAL INFORMATION

- Product not tested.

13. DISPOSAL CONSIDERATION

**Waste Disposal Method:** Dispose of in accordance with all Federal, State and Local environmental regulations.

14. TRANSPORT INFORMATION

- Transport in accordance with applicable international regulations and requirements. Not regulated under US DOT (United States Department of Transportation). Not listed as hazardous under USDOT shipping regulations.
- **UN – NONE**
- Not regulated under IATA, ground, ocean
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).

WHMIS: May not be classified.

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.

In China:

This product has been classified using the Chinese Occupational Limit for Hazardous Agents in the Workplace, GBZ2-2007. 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 in accordance with: Malaysian – OCCUPATIONAL SAFETY AND HEALTH (CLASSIFICATION, LABELING AND SAFETY DATA SHEET OF HAZARDOUS CHEMICALS) REGULATION OCTOBER 2013 – (CLASS).

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: 1
- Fire: 0
- Reactivity: 0

Revised Date: 21 DECEMBER 2018

Prepared by: Nancy Swarts, Indium Corporation of America

Approved by: Nancy Swarts, Indium Corporation of America

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