SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: 16-3565 THINNER
SDS Number: SDS-4032
Product Use: INDUSTRIAL USE- THINNER

Revised Date: 7 FEBRUARY 2015

MANUFACTURER:

In America:
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nswarts@indium.com
2. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY:

* Eye  * Inhalation  * Skin  * Ingestion

Carcinogen listed in

NTP  IARC  OSHA  * Not Listed

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/sparks/open flames/hot surfaces – No smoking
P233  Keep container tightly closed
P240  Ground/Bond container and receiving equipment
P241  Use explosion-proof electrical/ventilating/lightening/equipment
P242  Use only non-sparking 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
P273  Avoid release to the environment
P280  Wear protective gloves/protective clothing/eye protection/face protection
P362  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:

Flammable Liquid – Category 2
Eye irritation – Category 2A
Specific target organ toxicity- single exposure – Category 3- central nervous system

POTENTIAL HEALTH EFFECTS:

Eye Contact:  Vapors may be irritating, liquid may damage eye tissue.
Ingestion:  May cause persistent nausea, vomiting and abdominal pain.
Inhalation:  Vapor may cause headaches and or dizziness. High concentrations may cause central nervous system depression.
Skin Contact:  Prolonged contact may cause irritation and dermatitis.
Chronic:  Repeated skin contact can cause dryness.
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>ISOPROPANOL</td>
<td>100</td>
<td>67-63-0 (US)</td>
<td>980</td>
<td>983</td>
<td>1225</td>
</tr>
<tr>
<td>PROPA-2-OL</td>
<td>-</td>
<td>-</td>
<td>999</td>
<td>1250</td>
<td></td>
</tr>
<tr>
<td>(EU)</td>
<td>-</td>
<td>-</td>
<td>999</td>
<td>1250</td>
<td></td>
</tr>
<tr>
<td>(Singapore)</td>
<td>-</td>
<td>983</td>
<td>-</td>
<td>1230</td>
<td></td>
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<tr>
<td>(Mexico)</td>
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<td>980</td>
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<td>1230</td>
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<tr>
<td>(China)</td>
<td>-</td>
<td>350</td>
<td>-</td>
<td>700</td>
<td></td>
</tr>
<tr>
<td>(Germany)</td>
<td>-</td>
<td>980</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Symbol: Xi, F  Risk Phrases: R36/37/38, R11, R67

N.E. = Not established  EU = European Exposure Limits  IDLH Level 12,000 ppm

PRODUCT DOES NOT CONTAIN ANY EU REPORTABLE SUBSTANCES OF VERY HIGH CONCERN (SVHC)

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 (53°F)  Method: Closed Cup
Auto-ignition Temperature: 750 F
Flammable Limits: Upper: 12 ; Lower 2
Extinguishing Media: Dry chemical, CO₂, Dry sand, alcohol foam. 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. Use non-sparking tools. Ventilate area in accordance with regulations. Dispose of following all Federal, State and Local regulations. In the EU refer to the Special Waste Regulations. Classified as a flammable liquid.

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. Keep 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 recommended when there is a potential for exposure. Heating of product requires ventilation and care when heating a flammable material.

Personal protection:
Eyes: Chemical safety glasses/goggles. Face shield/goggles 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. Use gloves such as nitrile, which are compatible with alcohol.
Other: Lab coat, eye-wash 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>Colorless liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Alcohol odor. 22ppm threshold</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.790 @ 60° F</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>44 mm HG @ 25 F</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>2.1 (air=1)</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>60.1</td>
</tr>
<tr>
<td>Molecular Formula</td>
<td>C3 H8 O</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>82°C (180°F)</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>2.4</td>
</tr>
<tr>
<td>pH</td>
<td>Neutral</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Miscible</td>
</tr>
<tr>
<td>% Volatiles by volume</td>
<td>100</td>
</tr>
<tr>
<td>Flash Point</td>
<td>54°F (12°C)</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>44 mm HG @ 25 F</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

Carcinogenicity: National Toxicity Program NTP: No
Occupational Safety & Health Administration OSHA: No
International Agency for Research on Cancer IARC: No
LD50: Not established.
LC50: Not established.

NIOSH RTECS – NT8050000

Oral rat LD50 - 4396 mg/kg
Dermal rat LD50 – 12800 mg/kg
Dermal rabbit – 12870 mg/kg
Inhalation rat – 72.6 mg/l 4 h

12. ECOLOGICAL INFORMATION

Freshwater Algae – 1000 mg/l EC50 >72h
Freshwater Fish – 1400000 ug/l LC50 96h
Water Flea – 13299 mg/l EC50 48 h

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. Flammable liquid classification. Recycle/reuse if possible. Empty containers should be considered as hazardous as they contain product residues.

14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements.

UN 1219, Isopropanol, 3, PG II

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: 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.

SARA 313 Listing - 40 CFR 372.65: Only those who manufacture by the strong acid process are subject.

All ingredients are listed on the EPA TSCA Inventory, listed on the Philippines Inventory of Chemicals and Chemical Substances 2000, listed on the Canadian DSL and listed under EINECS # 200-661-7.

This product has been classified under the Mexican regulations NOM-018-STPS-2000 and NOM-010-STPS-1999.

This product has been classified using the Chinese Occupational Exposure Limit for Hazardous Agents in the Workplace, GBZ2-2002.

This product is in full compliance with the RoHS European Directive regarding the use of certain hazardous substances in electrical and electronic equipment.

EC Classification, Packaging and Labeling Requirements:

Symbol and Hazard Classification of Product

Xi F

Risk Phrases:
<table>
<thead>
<tr>
<th>R36/37/38</th>
<th>Irritating to eyes, respiratory system and skin</th>
</tr>
</thead>
<tbody>
<tr>
<td>R 11</td>
<td>Highly Flammable</td>
</tr>
<tr>
<td>R67</td>
<td>Vapors may cause drowsiness and dizziness</td>
</tr>
</tbody>
</table>

**Safety Phrases:**

| S16 | Keep away from sources of ignition - "No Smoking" |
| S20/21 | When using do not eat, drink or smoke          |
| S23 | Do not breathe fumes                           |
| S24/25 | Avoid contact with skin and eyes               |
| S28 | After contact with skin wash immediately with plenty of soap and water |
| S36/37/39 | Wear suitable protective clothing, gloves and eye/face protection |
| S62 | If swallowed, do not induce vomiting seek medical advice immediately and show container or label |
| S7 | Keep container tightly closed                  |

### 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>HMIS Hazard Rating:</th>
<th>Health: 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fire: 3</td>
</tr>
<tr>
<td></td>
<td>Reactivity: 0</td>
</tr>
<tr>
<td>Revised Date:</td>
<td>7 FEBRUARY 2015</td>
</tr>
<tr>
<td>Prepared by:</td>
<td>Nancy Swarts, Indium Corporation of America</td>
</tr>
<tr>
<td>Approved by:</td>
<td>Nancy Swarts, Indium Corporation of America</td>
</tr>
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</table>

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.