SAFETY DATA SHEET

Section 1. Identification

CHS Inc.  
P.O. Box 64089  
Mail station 525  
St. Paul, MN 55164-0089  

Transportation Emergency (CHEMTREC) : 1-800-424-9300  
Technical Information : 1-651-355-8443  
SDS Information : 1-651-355-8445  

Product name : INDOL EH ISO 46  
Common name : Industrial hydraulic fluid.  
Chemical name : Lubricating oil.  
Chemical family : Hydrocarbon.  

SDS no. : 0216-602812  
Revision date : 11/15/2013  

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

Lubricant.  

Section 2. Hazards identification

OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910. 1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product. 

Classification of the substance or mixture : Not classified. 

GHS label elements  

Signal word : No signal word. 
Hazard statements : No known significant effects or critical hazards. 
Precautionary statements : General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand. 
Hazardous Material Information System (U.S.A.) 
Health : 0  
Flammability : 1  
Physical hazards : 0  
National Fire Protection Association (U.S.A.) 
Health : 0  
Flammability : 1  
Instability : 0  

Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,6-Di-tert-butylphenol</td>
<td>0.1 - 1</td>
<td>128-39-2</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation. 

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. 

Occupational exposure limits, if available, are listed in Section 8. 

Section 4. First aid measures

Eye contact : If material comes in contact with the eyes, immediately wash the eyes with large amounts of water for 15 minutes, occasionally lifting the lower and upper lids. Get medical attention. 

Inhalation : If person breathes in large amounts of material, move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Keep the person warm and at rest. Get medical attention as soon as possible. 

Skin contact : If the material comes in contact with the skin, wash the contaminated skin with soap and water promptly. If the material penetrates through clothing, remove the clothing and wash the skin with soap and water promptly. If irritation persists after washing, get medical attention immediately. 

Ingestion : If material has been swallowed, do not induce vomiting. Get medical attention immediately.
Most important symptoms/effects, acute and delayed

<table>
<thead>
<tr>
<th>Potential acute health effects</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

Over-exposure signs/symptoms

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>Adverse symptoms may include the following: pain or irritation, watering, redness.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Adverse symptoms may include the following: respiratory tract irritation, coughing.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Adverse symptoms may include the following: irritation, redness.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

Indication of immediate medical attention and special treatment needed, if necessary

<table>
<thead>
<tr>
<th>Notes to physician</th>
<th>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific treatments</td>
<td>No specific treatment.</td>
</tr>
<tr>
<td>Protection of first-aiders</td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
</tbody>
</table>

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>Use water spray to cool fire exposed surfaces and to protect personnel. Foam, dry chemical or water spray (fog) to extinguish fire.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsuitable extinguishing media</td>
<td>None known.</td>
</tr>
<tr>
<td>Specific hazards arising from the chemical</td>
<td>Toxic fumes gases or vapors may evolve on burning.</td>
</tr>
<tr>
<td>Hazardous thermal decomposition products</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Special protective actions for fire-fighters</td>
<td>When fighting fires wear full turnout gear and self contained breathing apparatus. Water may cause splattering. Material floats on water.</td>
</tr>
<tr>
<td>Special protective equipment for fire-fighters</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

| Keep unnecessary and unprotected personnel from entering. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |

Methods and materials for containment and cleaning up

| Spill | Contain with dikes or absorbent to prevent migration to sewers/streams. Take up small spill with dry chemical absorbent; large spills may require pump or vacuum prior to absorbent. May require excavation of severely contaminated soil. |

Section 7. Handling and storage

Precautions for safe handling

<table>
<thead>
<tr>
<th>Protective measures</th>
<th>Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advice on general occupational hygiene</td>
<td>Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking.</td>
</tr>
<tr>
<td>Conditions for safe storage, including any incompatibilities</td>
<td>Do not store above the following temperature: 113°C (235.4°F). Odorous and toxic fumes may form from the decomposition of this product if stored at excessive temperatures for extended periods of time. Store in accordance with local regulations. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Use appropriate containment to avoid environmental contamination.</td>
</tr>
</tbody>
</table>
Section 8. Exposure controls/personal protection

**Control parameters**

**Occupational exposure limits**

None.

**Appropriate engineering controls**

- Use only with adequate ventilation.

**Environmental exposure controls**

- Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

**Individual protection measures**

**Hygiene measures**

- Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection**

- Recommended: Splash goggles and a face shield, where splash hazard exists.

**Skin protection**

**Hand protection**

- 4 - 8 hours (breakthrough time): Nitrile gloves.

**Body protection**

- Recommended: Long sleeved coveralls.

**Other skin protection**

- Recommended: Impervious boots.

**Respiratory protection**

- If ventilation is inadequate, use a NIOSH-certified respirator with an organic vapor cartridge and P95 particulate filter.

Section 9. Physical and chemical properties

**Appearance**

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Amber.</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>Not available.</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flash point</td>
<td>Closed cup: &gt;200°C (&gt;392°F)</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not available.</td>
</tr>
<tr>
<td>Lower and upper explosive (flammable) limits</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.84 to 0.88</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>&lt;1 (Butyl acetate = 1)</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>&gt;260°C (&gt;500°F)</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>SADT</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>&lt;0.13 kPa (&lt;1 mm Hg) (68°F)</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Section 10. Stability and reactivity

**Reactivity**

- No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability**

- The product is stable.

**Possibility of hazardous reactions**

- Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid**

- No specific data.

**Incompatible materials**

- Reactive or incompatible with the following materials: oxidizing materials.

**Hazardous decomposition products**

- Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

**Information on toxicological effects**

**Acute toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,6-Di-tert-butylphenol</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;10 g/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1320 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

**Irritation/Corrosion**
<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,6-Di-tert-butylphenol</td>
<td>Skin - Moderate irritant</td>
<td>Rat</td>
<td>-</td>
<td>0.5 mL</td>
<td>-</td>
</tr>
</tbody>
</table>

**Sensitization**

Skin: There is no data available.

Respiratory: There is no data available.

**Mutagenicity**

There is no data available.

**Carcinogenicity**

There is no data available.

**Reproductive toxicity**

There is no data available.

**Teratogenicity**

There is no data available.

**Specific target organ toxicity (single exposure)**

There is no data available.

**Specific target organ toxicity (repeated exposure)**

There is no data available.

**Aspiration hazard**

There is no data available.

**Information on the likely routes of exposure**

Dermal contact. Eye contact. Inhalation. Ingestion.

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**Section 12. Ecological information**

**Toxicity**

There is no data available.

**Persistence and degradability**

There is no data available.

**Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,6-Di-tert-butylphenol</td>
<td>4.5</td>
<td>-</td>
<td>high</td>
</tr>
</tbody>
</table>

**Mobility in soil**

Soil/water partition coefficient (K<sub>oc</sub>): There is no data available.

**Other adverse effects**

No known significant effects or critical hazards.

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**Section 13. Disposal considerations**

**Disposal methods**

Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

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**Section 14. Transport information**

**DOT IDENTIFICATION NUMBER** Not applicable.

**DOT proper shipping name** Not applicable.

**DOT Hazard Class(es)** Not applicable.

**PG** Not applicable.

**DOT EMER. RESPONSE GUIDE NO.** Not applicable.
Section 15. Regulatory information

U.S. Federal regulations

- TSCA 4(a) final test rules: 2-Butenedioic acid (E)-, di-C8-18-alkyl esters
- TSCA 8(a) PAIR: 2-Butenedioic acid (E)-, di-C8-18-alkyl esters
- TSCA 8(a) CDR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): All components are listed or exempted.

Clean Water Act (CWA) 307: Zinc O,O,O’,O’-tetrais(1,3-dimethylbutyl) bis(phosphorodithioate); Toluene; Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts
Clean Water Act (CWA) 311: Toluene; Vinyl acetate

California Prop. 65

WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer.
WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Massachusetts

- None of the components are listed.

New York

- None of the components are listed.

New Jersey

- The following components are listed: Distillates (petroleum), hydrotreated heavy paraffinic

Pennsylvania

- None of the components are listed.

California Prop. 65

- WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer.
- WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Cancer</th>
<th>Reproductive</th>
<th>No significant risk level</th>
<th>Maximum acceptable dosage level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
<td>7000 µg/day (ingestion)</td>
</tr>
<tr>
<td>Vinyl acetate</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>13000 µg/day (inhalation)</td>
</tr>
<tr>
<td>Ethyl acrylate</td>
<td>Yes.</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
</tr>
</tbody>
</table>

TSCA 302/304

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>EHS</th>
<th>SARA 302 TPQ (lbs)</th>
<th>SARA 304 RQ (gallons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vinyl acetate</td>
<td>0 - 0.1</td>
<td>Yes.</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

SARA 311/312

Classification: Not applicable.

SARA 313

- This product (does/not) contain toxic chemicals subject to the reporting requirements of SARA Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

Zinc compounds

- Mixture
- 0.09 as Zinc
Section 16. Other information

Notice to reader

THE INFORMATION CONTAINED IN THIS SDS RELATES ONLY TO THE SPECIFIC MATERIAL IDENTIFIED. IT DOES NOT COVER USE OF THAT MATERIAL IN COMBINATION WITH ANY OTHER MATERIAL OR IN ANY PARTICULAR PROCESS. IN COMPLIANCE WITH 29 C.F.R. 1910.1200(g), CHS HAS PREPARED THIS SDS IN SEGMENTS, WITH THE INTENT THAT THOSE SEGMENTS BE READ TOGETHER AS A WHOLE WITHOUT TEXTUAL OMISSIONS OR ALTERATIONS. CHS BELIEVES THE INFORMATION CONTAINED HEREIN TO BE ACCURATE, BUT MAKES NO REPRESENTATION, GUARANTEE, OR WARRANTY, EXPRESS OR IMPLIED, ABOUT THE ACCURACY, RELIABILITY, OR COMPLETENESS OF THE INFORMATION OR ABOUT THE FITNESS OF CONTENTS HEREIN FOR EITHER GENERAL OR PARTICULAR PURPOSES. PERSONS REVIEWING THIS SDS SHOULD MAKE THEIR OWN DETERMINATION AS TO THE MATERIAL'S SUITABILITY AND COMPLETENESS FOR USE IN THEIR PARTICULAR APPLICATIONS.