1. **Product and company identification**

<table>
<thead>
<tr>
<th>Product name</th>
<th>DURASYN ® 148 POLYALPHAOLEFINS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplier</td>
<td>INEOS USA LLC</td>
</tr>
<tr>
<td></td>
<td>2600 South Shore Blvd.</td>
</tr>
<tr>
<td></td>
<td>League City, Texas 77573</td>
</tr>
<tr>
<td>Material uses</td>
<td>Industrial applications: Synthetic Base Material</td>
</tr>
<tr>
<td>MSDS #</td>
<td>0000001751 (NAP)</td>
</tr>
<tr>
<td>Print date</td>
<td>5/20/2009</td>
</tr>
<tr>
<td>Emergency telephone number</td>
<td>1 (800) 424-9300</td>
</tr>
<tr>
<td></td>
<td>Outside the US: +1 703-527-3887 (CHEMTREC)</td>
</tr>
<tr>
<td>Other Product Information</td>
<td>Phone: 1-866-363-2454</td>
</tr>
<tr>
<td></td>
<td>email: <a href="mailto:OLIGOMERSMSDS@ineos.com">OLIGOMERSMSDS@ineos.com</a></td>
</tr>
<tr>
<td>Product type</td>
<td>Liquid.</td>
</tr>
</tbody>
</table>

2. **Hazards identification**

### Physical state
- Liquid.

### Odor
- Characteristic.

### OSHA/HCS status
- While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

### Emergency overview
- This product has been evaluated and does not require any hazard warning on the label under established regulatory criteria.

- NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

- No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing.

### Routes of entry
- Dermal contact. Eye contact. Inhalation. Ingestion.

#### Potential acute health effects

- **Inhalation**: Inhalation of oil mist or vapors at elevated temperatures may cause respiratory irritation.

- **Ingestion**: No known significant effects or critical hazards.

- **Skin**: Prolonged or repeated contact may dry skin and cause irritation.

- **Eyes**: No known significant effects or critical hazards.

#### Potential chronic health effects

- **Chronic effects**: No known significant effects or critical hazards.

- **Carcinogenicity**: No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH or the International Agency for Research on Cancer (IARC). No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program (NTP) or the U.S. Occupational Safety and Health Act (OSHA).

- **Mutagenicity**: No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a mutagen.

- **Teratogenicity**: No component of this product at levels greater than 0.1% is classified by established regulatory criteria as teratogenic or embryotoxic.

- **Developmental effects**: No known significant effects or critical hazards.

- **Fertility effects**: No known significant effects or critical hazards.

- **Target organs**: None known.

#### Over-exposure signs/symptoms

- **Inhalation**: No specific data.
2. Hazards identification

Ingestion: No specific data.
Skin: No specific data.
Eyes: No specific data.
Medical conditions aggravated by over-exposure: None identified.

See toxicological information (section 11)

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Dodecene, homopolymer, hydrogenated</td>
<td>151006-63-2</td>
<td>100</td>
</tr>
</tbody>
</table>

4. First aid measures

Eye contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
Get medical attention if irritation occurs.

Skin contact: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops.

Inhalation: If inhaled, remove to fresh air. Get medical attention if symptoms appear.

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If potentially dangerous quantities of this material have been swallowed, call a physician immediately.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

5. Fire-fighting measures

Flammability of the product: May be combustible at high temperature.
Extinguishing media
Suitable: In case of fire, use water fog, foam, dry chemicals, or carbon dioxide.
Not suitable: Do not use water jet.

Special exposure hazards: None known.
Hazardous thermal decomposition products: No specific data.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Special remarks on explosion hazards: This material is not explosive as defined by established regulatory criteria.

6. Accidental release measures

Personal precautions: Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (section 8). Follow all fire-fighting procedures (section 5).

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. See section 13 for waste disposal information.

Methods for cleaning up
Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
6. Accidental release measures

Large spill: If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

7. Handling and storage

Handling: Avoid breathing vapors, spray or mists. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. Empty containers may contain harmful, flammable/combustible or explosive residue or vapors. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards.

8. Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits.

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. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory: Avoid breathing vapor or mist. If ventilation is inadequate, use certified respirator that will protect against organic vapor.

Hands: Wear protective gloves if prolonged or repeated contact is likely.

Eyes: Chemical splash goggles.

Skin: Avoid prolonged or repeated contact with skin. Wear protective gloves if prolonged or repeated contact is likely.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Other protection: No known special precautions required. See Section: "Handling and storage" for additional information.

9. Physical and chemical properties

Physical state: Liquid.

Flash point: Open cup: >260°C (>500°F) [Cleveland.]

Auto-ignition temperature: 372°C (701.6°F)

Color: Colorless.

Odor: Characteristic.

pH: 7

Relative density: <1

Viscosity: Kinematic (40°C (104°F)): 0.44 cm²/s (44 cSt)

Explosive properties: This material is not explosive as defined by established regulatory criteria.
10. Stability and reactivity

<table>
<thead>
<tr>
<th>Chemical stability</th>
<th>The product is stable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possibility of hazardous reactions</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
<tr>
<td>Hazardous polymerization</td>
<td>Will not occur.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Materials to avoid</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
<tr>
<td>Conditions of reactivity</td>
<td>None identified.</td>
</tr>
</tbody>
</table>

This material is not explosive as defined by established regulatory criteria.

Incompatibility with various substances: Strong oxidizing materials.

11. Toxicological information

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>Not available.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chronic toxicity

Not available.

12. Ecological information

Environmental effects: Not classified as dangerous

Aquatic ecotoxicity: Not available.

Conclusion/Summary: No testing has been performed by the manufacturer.

Biodegradability

Conclusion/Summary: No testing has been performed by the manufacturer.

Mobility: This product is not likely to move rapidly with surface or groundwater flows because of its low water solubility. This product is not likely to volatilize rapidly into the air because of its low vapor pressure.

Other adverse effects: No known significant effects or critical hazards.

13. Disposal considerations

Waste disposal: Avoid contact of spilled material and runoff with soil and surface waterways. Consult an environmental professional to determine if local, regional or national regulations would classify spilled or contaminated materials as hazardous waste. Use only approved transporters, recyclers, treatment, storage or disposal facilities. Dispose of in accordance with all applicable local and national regulations.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

Not classified as hazardous for transport (DOT, TDG, IMO/IMDG, IATA/ICAO)
### United States

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCS Classification</td>
<td>Not regulated.</td>
</tr>
<tr>
<td>U.S. Federal regulations</td>
<td>United States inventory (TSCA 8b): Listed on inventory. SARA 302/304/311/312 extremely hazardous substances: No products were found. SARA 302/304 emergency planning and notification: No products were found. SARA 302/304/311/312 hazardous chemicals: No products were found. SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found. Clean Water Act (CWA) 307: No products were found. Clean Water Act (CWA) 311: No products were found. Clean Air Act (CAA) 112 accidental release prevention: No products were found. Clean Air Act (CAA) 112 regulated flammable substances: No products were found. Clean Air Act (CAA) 112 regulated toxic substances: No products were found.</td>
</tr>
<tr>
<td>Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)</td>
<td>Not listed</td>
</tr>
<tr>
<td>Clean Air Act Section 602 Class I Substances</td>
<td>Not listed</td>
</tr>
<tr>
<td>Clean Air Act Section 602 Class II Substances</td>
<td>Not listed</td>
</tr>
<tr>
<td>DEA List I Chemicals (Precursor Chemicals)</td>
<td>Not listed</td>
</tr>
<tr>
<td>DEA List II Chemicals (Essential Chemicals)</td>
<td>Not listed</td>
</tr>
<tr>
<td>State regulations</td>
<td>Connecticut Carcinogen Reporting: None of the components are listed. Connecticut Hazardous Material Survey: None of the components are listed. Florida substances: None of the components are listed. Illinois Chemical Safety Act: None of the components are listed. Illinois Toxic Substances Disclosure to Employee Act: None of the components are listed. Louisiana Reporting: None of the components are listed. Louisiana Spill: None of the components are listed. Massachusetts Spill: None of the components are listed. Massachusetts Substances: None of the components are listed. Michigan Critical Material: None of the components are listed. Minnesota Hazardous Substances: None of the components are listed. New Jersey Hazardous Substances: None of the components are listed. New Jersey Spill: None of the components are listed. New Jersey Toxic Catastrophe Prevention Act: None of the components are listed. New York Acutely Hazardous Substances: None of the components are listed. New York Toxic Chemical Release Reporting: None of the components are listed. Pennsylvania RTK Hazardous Substances: None of the components are listed. Rhode Island Hazardous Substances: None of the components are listed.</td>
</tr>
</tbody>
</table>

### Canada

| WHMIS (Canada)                      | Not controlled under WHMIS (Canada). |
15. Regulatory information

Canadian lists:
- CEPA Toxic substances: None of the components are listed.
- Canadian ARET: None of the components are listed.
- Canadian NPRI: None of the components are listed.
- Alberta Designated Substances: None of the components are listed.
- Ontario Designated Substances: None of the components are listed.
- Quebec Designated Substances: None of the components are listed.

Canada inventory:
- Listed on inventory.

Mexico:
- Classification:

EU regulations:
- Risk phrases:

International regulations:
- International lists:
  - AUSTRALIAN INVENTORY (AICS): Listed on inventory.
  - CANADA INVENTORY (DSL): Listed on inventory.
  - CHINA INVENTORY (IECS): Listed on inventory.
  - EC INVENTORY (EINECS/ELINCS): In compliance.
  - JAPAN INVENTORY (ENCS): Listed on inventory.
  - KOREA INVENTORY (ECL): Listed on inventory.
  - PHILIPPINE INVENTORY (PICCS): Listed on inventory.

Chemical Weapons:
- Convention List Schedule I Chemicals: Not listed
- Convention List Schedule II Chemicals: Not listed
- Convention List Schedule III Chemicals: Not listed

16. Other information

Label requirements:
- NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

Hazardous Material Information System (U.S.A.)
- Health: 1
- Flammability: 1
- Physical hazards: 0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.
16. Other information

Date of issue : 5/20/2009.
Version : 0.03
Prepared by : Product Stewardship

Indicates information that has changed from previously issued version.

Notice to reader

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