

## SAFETY DATA SHEET

### Tec-Guard Defend Synthetic EP Gear Oil ISO-460 & ISO-680

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

#### 1. Identification

##### Product identifier

**Product name**                      Tec-Guard Defend Synthetic EP Gear Oil ISO-460  
                                             Tec-Guard Defend Synthetic EP Gear Oil ISO-680

##### Recommended use of the chemical and restrictions on use

**Application**                        Lubricant. Not to be misted.

**Uses advised against**            No specific uses advised against are identified.

##### Details of the supplier of the safety data sheet

**Supplier**                            TEC-GUARD  
                                             400 S 14 Ave  
                                             Eldridge, IA 52748  
                                             800-522-1150  
                                             www.tec-guard.com

##### Emergency telephone number

**Emergency telephone**           CHEMTREC: Within USA and Canada: 1-800-424-9300  
                                             Outside the USA and Canada: +1 703-741-5970  
                                             (collect calls accepted) 24/7

#### 2. Hazard(s) identification

##### Classification of the substance or mixture

**Physical hazards**                   Not Classified

**Health hazards**                   Skin Sens. 1 - H317

**Environmental hazards**           Not Classified

##### Label elements

##### Pictogram



**Signal word**                        Warning

**Hazard statements**               H317 May cause an allergic skin reaction.

**Precautionary statements**      P261 Avoid breathing vapor/ spray.  
                                             P272 Contaminated work clothing must not be allowed out of the workplace.  
                                             P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
                                             P302+P352 If on skin: Wash with plenty of water.  
                                             P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.  
                                             P362+P364 Take off contaminated clothing and wash it before reuse.  
                                             P501 Dispose of contents/ container in accordance with national regulations.



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### Other hazards

This product does not contain any substances classified as PBT or vPvB.

### 3. Composition/information on ingredients

#### Mixtures

|                                                                                                                                                                                                                                              |  |                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------|
| <b>Amines, C12-14-tert-alkyl</b>                                                                                                                                                                                                             |  | <b>0.025 - &lt;0.25%</b> |
| CAS number: 68955-53-3                                                                                                                                                                                                                       |  |                          |
| M factor (Acute) = 1                                                                                                                                                                                                                         |  | M factor (Chronic) = 1   |
| <b>Classification</b><br>Flam. Liq. 4 - H227<br>Acute Tox. 4 - H302<br>Acute Tox. 3 - H311<br>Acute Tox. 2 - H330<br>Skin Corr. 1B - H314<br>Eye Dam. 1 - H318<br>Skin Sens. 1A - H317<br>Aquatic Acute 1 - H400<br>Aquatic Chronic 1 - H410 |  |                          |

The full text for all hazard statements is displayed in Section 16.

### 4. First-aid measures

#### Description of first aid measures

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General information</b> | Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Inhalation</b>          | Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway.<br>Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.                                                                                                                                                                                                                |
| <b>Ingestion</b>           | Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. |
| <b>Skin Contact</b>        | It is important to remove the substance from the skin immediately. In the event of any sensitization symptoms developing, ensure further exposure is avoided. Remove contamination with soap and water or recognized skin cleansing agent. Get medical attention if symptoms are severe or persist after washing.                                                                                                                                                                                                                                                                                                                                                        |
| <b>Eye contact</b>         | Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 20 minutes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |



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|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Protection of first aiders</b> | First aid personnel should wear appropriate protective equipment during any rescue. If it is suspected that volatile contaminants are still present around the affected person, first aid personnel should wear an appropriate respirator or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation. |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Most important symptoms and effects, both acute and delayed

|                            |                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General information</b> | See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.                                                                                                                                                                                                                        |
| <b>Inhalation</b>          | A single exposure may cause the following adverse effects: Dryness of mouth and throat. Coughing, chest tightness, feeling of chest pressure. Overexposure to organic solvents may depress the central nervous system, causing dizziness and intoxication and, at very high concentrations, unconsciousness and death. Congestion of the lungs may occur, producing severe shortness of breath. |
| <b>Ingestion</b>           | May cause sensitization or allergic reactions in sensitive individuals. A single exposure may cause the following adverse effects: Irritation. Nausea, vomiting. Symptoms following overexposure may include the following: Unconsciousness. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.                                                      |
| <b>Skin contact</b>        | May cause skin sensitization or allergic reactions in sensitive individuals. A single exposure may cause the following adverse effects: Redness. Irritation.                                                                                                                                                                                                                                    |
| <b>Eye contact</b>         | A single exposure may cause the following adverse effects: Redness. Irritation.                                                                                                                                                                                                                                                                                                                 |

### Indication of immediate medical attention and special treatment needed

|                             |                                                                                                |
|-----------------------------|------------------------------------------------------------------------------------------------|
| <b>Notes for the doctor</b> | Treat symptomatically. May cause sensitization or allergic reactions in sensitive individuals. |
|-----------------------------|------------------------------------------------------------------------------------------------|

## 5. Fire-fighting measures

### Extinguishing media

|                                       |                                                                                                                                                                                |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Suitable extinguishing media</b>   | The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire. |
| <b>Unsuitable extinguishing media</b> | Do not use water jet as an extinguisher, as this will spread the fire.                                                                                                         |

### Special hazards arising from the substance or mixture

|                                      |                                                                                                                                                                                              |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Specific hazards</b>              | Containers can burst violently or explode when heated, due to excessive pressure build-up. Contains Hydrocarbons. The product is immiscible with water and will spread on the water surface. |
| <b>Hazardous combustion products</b> | Hydrocarbons. Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ).                                                                                                                       |

### Advice for firefighters

|                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Protective actions during firefighting</b>        | Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities. |
| <b>Special protective equipment for firefighters</b> | Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves will                                                                                                                                                                                                                                                                                                                               |



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### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

**Personal precautions** No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material. Avoid contact with skin and eyes. Use protective equipment appropriate for surrounding materials.

#### Environmental precautions

**Environmental precautions** Immiscible with water. Aquatic toxicity is unlikely to occur. However, large or frequent spills may have hazardous effects on the environment. Absorb spillage with non-combustible, absorbent material. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

#### Methods and material for containment and cleaning up

**Methods for cleaning up** Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Small Spillages: Absorb spillage with sand or other inert absorbent. Collect and place in suitable waste disposal containers and seal securely. Large Spillages: If leakage cannot be stopped, evacuate area. Flush spilled material into an effluent treatment plant, or proceed as follows. Contain and absorb spillage with sand, earth or other non-combustible material. Place waste in labeled, sealed containers. Clean contaminated objects and areas thoroughly, observing environmental regulations. The contaminated absorbent may pose the same hazard as the spilled material. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

**Reference to other sections** For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

### 7. Handling and storage

#### Precautions for safe handling

**Usage precautions** Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimize spills. The product contains a sensitizing substance. Persons susceptible to allergic reactions should not handle this product. Keep container tightly sealed when not in use. Avoid the formation of mists. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers. Avoid contact with used product.

**Advice on general occupational hygiene** Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

#### Conditions for safe storage, including any incompatibilities



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**Storage precautions** Store away from incompatible materials (see Section 10). Store in accordance with local regulations. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Utilize retaining walls to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.

**Storage class** Chemical storage.

### Specific end uses(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.

## 8. Exposure Controls/personal protection

### Control parameters

#### Occupational exposure limits

Under conditions which may generate mists, the following exposure limits are recommended:

Long-term exposure limit (8-hour TWA): ACGIH 5 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): 10 mg/m<sup>3</sup>

**Ingredient comments** The product contains no other substances classified as hazardous to health by an OEL value in concentrations which should be taken into account.

### Exposure controls

**Appropriate engineering controls** Provide adequate ventilation. Personal, workplace environment 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. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimize worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimize exposure.

**Eye/face protection** Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with OSHA 1910.133. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

**Hand protection** Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and be demonstrated to be impervious to the chemical and resist degradation. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

**Other skin and body protection** Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

**Hygiene measures** Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.



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|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Respiratory protection</b>          | Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with OSHA 1910.134. Full face mask respirators with replaceable filter cartridges should comply with OSHA 1910.134. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134. |
| <b>Environmental exposure controls</b> | Keep container tightly sealed when not in use.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

### 9. Physical and Chemical Properties

#### Information on basic physical and chemical properties

|                                                     |                                                                        |
|-----------------------------------------------------|------------------------------------------------------------------------|
| <b>Appearance</b>                                   | Liquid.                                                                |
| <b>Color</b>                                        | Yellow.                                                                |
| <b>Odor</b>                                         | Sulfur.                                                                |
| <b>Odor threshold</b>                               | Not available.                                                         |
| <b>pH</b>                                           | Not available.                                                         |
| <b>Melting point</b>                                | Not available.                                                         |
| <b>Initial boiling point and range</b>              | Not available.                                                         |
| <b>Flash point</b>                                  | 244-250°C Cleveland open cup., [ASTM D92]                              |
| <b>Evaporation rate</b>                             | Not available.                                                         |
| <b>Upper/lower flammability or explosive limits</b> | Not available.                                                         |
| <b>Vapor pressure</b>                               | Not available.                                                         |
| <b>Vapor density</b>                                | Not available.                                                         |
| <b>Relative density</b>                             | 0.8633 - 0.8686                                                        |
| <b>Bulk density</b>                                 | Not available.                                                         |
| <b>Solubility(ies)</b>                              | Not known.                                                             |
| <b>Partition coefficient</b>                        | Not available.                                                         |
| <b>Auto-ignition temperature</b>                    | Not available.                                                         |
| <b>Decomposition Temperature</b>                    | Not available.                                                         |
| <b>Viscosity</b>                                    | 457.4-678.6 cSt @ 40°C [ASTM D 445] 49.2-74.3 cSt @ 100°C [ASTM D 445] |
| <b>Viscosity index</b>                              | 168-190, [ASTM D 2270]                                                 |
| <b>Explosive properties</b>                         | Not considered to be explosive.                                        |
| <b>Oxidizing properties</b>                         | Does not meet the criteria for classification as oxidizing.            |
| <b>Fire point</b>                                   | 284-306°C Cleveland open cup. [ASTM D 92]                              |
| <b>Pour point</b>                                   | -35-(-31)°C [ASTM D 97]                                                |

### 10. Stability and reactivity



## Tec-Guard Defend Synthetic EP Gear Oil ISO-460 & ISO-680

|                                           |                                                                                                                                                                     |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stability</b>                          | Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.                                                 |
| <b>Possibility of hazardous reactions</b> | No potentially hazardous reactions known.                                                                                                                           |
| <b>Conditions to avoid</b>                | There are no known conditions that are likely to result in a hazardous situation.                                                                                   |
| <b>Materials to avoid</b>                 | Oxidizing agents. Acids - oxidizing.                                                                                                                                |
| <b>Hazardous decomposition products</b>   | Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors. |

### 11. Toxicological information

#### Information on toxicological effects

##### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** Based on available data the classification criteria are not met.

##### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** Based on available data the classification criteria are not met.

**ATE dermal (mg/kg)** 204,897.96

##### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Based on available data the classification criteria are not met.

**ATE inhalation (vapours mg/l)** 408.16

##### Skin corrosion/irritation

**Animal data** Based on available data the classification criteria are not met.

##### Serious eye damage/irritation

**Serious eye damage/irritation** Based on available data the classification criteria are not met.

##### Respiratory sensitization

**Respiratory sensitization** Based on available data the classification criteria are not met.

##### Skin sensitization

**Skin sensitization** May cause skin sensitization or allergic reactions in sensitive individuals.

##### Germ cell mutagenicity

**Genotoxicity - in vitro** Based on available data the classification criteria are not met.

##### Carcinogenicity

**Carcinogenicity** Based on available data the classification criteria are not met.

##### IARC carcinogenicity

None of the ingredients are listed or exempt.

##### Reproductive toxicity

**Reproductive toxicity - fertility** Based on available data the classification criteria are not met.

**Reproductive toxicity - development**

Based on available data the classification criteria are not met.

##### Specific target organ toxicity - single exposure

**STOT - single exposure** Not classified as a specific target organ toxicant after a single exposure.





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|                                 |                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>STOT - repeated exposure</b> | Not classified as a specific target organ toxicant after repeated exposure.                                                                                                                                                                                                                                                                                                                     |
| <b><u>Aspiration hazard</u></b> |                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Aspiration hazard</b>        | Based on available data the classification criteria are not met.                                                                                                                                                                                                                                                                                                                                |
| <b>General information</b>      | The severity of the symptoms described will vary dependent on the concentration and the length of exposure.                                                                                                                                                                                                                                                                                     |
| <b>Inhalation</b>               | A single exposure may cause the following adverse effects: Dryness of mouth and throat. Coughing, chest tightness, feeling of chest pressure. Overexposure to organic solvents may depress the central nervous system, causing dizziness and intoxication and, at very high concentrations, unconsciousness and death. Congestion of the lungs may occur, producing severe shortness of breath. |
| <b>Ingestion</b>                | May cause sensitization or allergic reactions in sensitive individuals. A single exposure may cause the following adverse effects: Irritation. Nausea, vomiting. Symptoms following overexposure may include the following: Unconsciousness. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.                                                      |
| <b>Skin Contact</b>             | May cause skin sensitization or allergic reactions in sensitive individuals. A single exposure may cause the following adverse effects: Redness. Irritation.                                                                                                                                                                                                                                    |
| <b>Eye contact</b>              | A single exposure may cause the following adverse effects: Redness. Irritation.                                                                                                                                                                                                                                                                                                                 |
| <b>Route of entry</b>           | Ingestion Inhalation Skin and/or eye contact                                                                                                                                                                                                                                                                                                                                                    |
| <b>Target Organs</b>            | No specific target organs known.                                                                                                                                                                                                                                                                                                                                                                |
| <b>Medical considerations</b>   | Skin disorders and allergies.                                                                                                                                                                                                                                                                                                                                                                   |

### Toxicological information on ingredients.

#### Amines, C12-14-tert-alkyl

##### Acute toxicity - oral

Acute toxicity oral (LD<sub>50</sub> mg/kg) 612.0

Species Rat

Notes (oral LD<sub>50</sub>) REACH dossier information. Harmful if swallowed.

ATE oral (mg/kg) 612.0

##### Acute toxicity - dermal

Acute toxicity dermal (LD<sub>50</sub> mg/kg) 251.0

Species Rat

Notes (dermal LD<sub>50</sub>) REACH dossier information. Toxic in contact with skin.

ATE dermal (mg/kg) 251.0

##### Acute toxicity - inhalation

Notes (inhalation LC<sub>50</sub>) Fatal if inhaled.

ATE inhalation (vapours mg/l) 0.5





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|                                             |                                                                                                                               |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Skin corrosion/irritation</b>            | Corrosive to skin.                                                                                                            |
| <b>Animal data</b>                          | Dose: 0.5ml, 4 hours, Rabbit Primary dermal irritation index: 7.3 REACH dossier information.                                  |
| <b><u>Serious eye damage/irritation</u></b> |                                                                                                                               |
| <b>Serious eye damage/irritation</b>        | Dose: 0.1ml, 30 seconds, Rabbit REACH dossier information. Causes serious eye damage.                                         |
| <b><u>Skin sensitization</u></b>            |                                                                                                                               |
| <b>Skin sensitization</b>                   | Buehler test - Guinea pig: Sensitizing. REACH dossier information. May cause an allergic skin reaction.                       |
| <b><u>Germ cell mutagenicity</u></b>        |                                                                                                                               |
| <b>Genotoxicity - in vitro</b>              | Gene mutation: Negative. REACH dossier information. Based on available data the classification criteria are not met.          |
| <b>Genotoxicity - in vivo</b>               | Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.  |
| <b><u>Reproductive toxicity</u></b>         |                                                                                                                               |
| <b>Reproductive toxicity - development</b>  | - NOAEL: 5 mg/kg/day, Dermal, Rat REACH dossier information. Based on available data the classification criteria are not met. |

### 12. Ecological Information

|                    |                                                                                                                                 |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Ecotoxicity</b> | Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment. |
| <b>Toxicity</b>    | Based on available data the classification criteria are not met.                                                                |

#### Ecological information on ingredients.

##### Amines, C12-14-tert-alkyl

##### Acute aquatic toxicity

**LE(C)<sub>50</sub>** 0.1 < L(E)C<sub>50</sub> ≤ 1

**M factor (Acute)** 1

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 1.3 mg/l, Onchorhynchus mykiss (Rainbow trout) REACH dossier information.

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 2.5 mg/l, Daphnia magna REACH dossier information.

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: 0.44 mg/l, Selenastrum capricornutum REACH dossier information.

##### Chronic aquatic toxicity

**NOEC** 0.01 < NOEC ≤ 0.1

**Degradability** Non-rapidly degradable

**M factor (Chronic)** 1

**Chronic toxicity - fish early life stage** NOEC, 96 days: 0.078 mg/l, Onchorhynchus mykiss (Rainbow trout) REACH dossier information.



## Tec-Guard Defend Synthetic EP Gear Oil ISO-460 & ISO-680

### Persistence and degradability

**Persistence and degradability** The degradability of the product is not known.

### Ecological information on ingredients.

#### Amines, C12-14-tert-alkyl

**Stability (hydrolysis)** pH4, pH9, pH7 - Half-life : > 1 year @ 25°C  
REACH dossier information.

**Biodegradation** Water - Degradation 22%: 28 days  
REACH dossier information.

### Bioaccumulative potential

**Bio-Accumulative Potential** No data available on bioaccumulation.

**Partition coefficient** Not available.

### Ecological information on ingredients.

#### Amines, C12-14-tert-alkyl

**Partition coefficient** log Pow: 2.9 REACH dossier information.

### Mobility in soil

**Mobility** The product is insoluble in water.

### Ecological information on ingredients.

#### Amines, C12-14-tert-alkyl

**Mobility** Slightly soluble in water.

**Adsorption/desorption coefficient** Soil - Log Koc: 4.01 @ 20°C REACH dossier information.

**Surface tension** 47.4 mN/m @ 22°C REACH dossier information.

### Other adverse effects

**Other adverse effects** None known.

## 13. Disposal considerations

### Waste treatment methods

#### **General information**

The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

#### **Disposal methods**

Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents. Incineration or landfill should only be considered when recycling is not feasible.



## Tec-Guard Defend Synthetic EP Gear Oil ISO-460 & ISO-680

### 14. Transport information

#### General

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

#### UN Number

Not applicable.

#### UN proper shipping name

Not applicable.

#### Transport hazard class(es)

No transport warning sign required.

#### DOT transport labels

No transport warning sign required.

#### Transport labels

No transport warning sign required.

#### Packing group

Not applicable.

#### Environmental hazards

##### Environmentally Hazardous Substance

No.

#### Special precautions for user

Not applicable.

#### DOT TIH Zone

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

### 15. Regulatory information

#### US Federal Regulations

##### SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

The following ingredients are listed or exempt:

##### *Ethylene oxide*

EPCRA 302 TPQ 1000 lbs Tier II TPQ 500 lbs

##### *Methyloxirane*

EPCRA 302 TPQ 10000 lbs Tier II TPQ 500 lbs

##### CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

The following ingredients are listed:

##### *Ethyl acrylate*

Final CERCLA RQ: 1000(454) pounds (Kilograms)

##### *Ethylene oxide*

Final CERCLA RQ: 10(4.54) pounds (Kilograms)

##### *Methyloxirane*



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### *1,4-dioxane*

Final CERCLA RQ: 100(45.4) pounds (Kilograms)

### *Butan-1-ol*

Final CERCLA RQ: 5000(2270) pounds (Kilograms)

### *Phosphoric acid*

Final CERCLA RQ: 5000(2270) pounds (Kilograms)

### **SARA Extremely Hazardous Substances EPCRA Reportable Quantities**

None of the ingredients are listed or exempt.

### **SARA 313 Emission Reporting**

The following ingredients are listed or exempt:

#### *Ethyl acrylate*

0.1 %

#### *Ethylene oxide*

0.1 %

#### *Methyloxirane*

0.1 %

#### *1,4-dioxane*

0.1 %

#### *Butan-1-ol*

1.0 %

### **CAA Accidental Release Prevention**

The following ingredients are listed or exempt:

#### *Ethylene oxide*

Threshold Quantity: 10000 lbs

#### *Methyloxirane*

Threshold Quantity: 10000 lbs

### **SARA (311/312) Hazard Categories**

None of the ingredients are listed or exempt.

### **OSHA Highly Hazardous Chemicals**

The following ingredients are listed or exempt:

#### *Ethylene oxide*

Threshold Quantity: 5000 lbs

### **US State Regulations**

#### **California Proposition 65 Carcinogens and Reproductive Toxins**

The following ingredients are listed:

##### *Ethyl acrylate*

Known to the State of California to cause cancer.

##### *Ethylene oxide*

Known to the State of California to cause cancer, developmental, female and male reproductive toxicity.

##### *Methyloxirane*

Known to the State of California to cause cancer.

##### *1,4-dioxane*

Known to the State of California to cause cancer.



## Tec-Guard Defend Synthetic EP Gear Oil ISO-460 & ISO-680

### California Air Toxics "Hot Spots" (A-I)

The following ingredients are listed or exempt:

*Ethyl acrylate*

Present.

*Ethylene oxide*

Present.

*Methyloxirane*

Present.

*1,4-dioxane*

Present.

*Butan-1-ol*

Present.

*Phosphoric acid*

Present.

### California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed or exempt.

### California Directors List of Hazardous Substances

The following ingredients are listed or exempt:

*Ethyl acrylate*

Present.

*Ethylene oxide*

Present.

*Methyloxirane*

Present.

*1,4-dioxane*

Present.

*Butan-1-ol*

Present.

*Phosphoric acid*

Present.

### Massachusetts "Right To Know" List

The following ingredients are listed or exempt:

*Ethyl acrylate*

Present.

*Ethylene oxide*

Present.

*Methyloxirane*

Present.

*1,4-dioxane*

Present.

*Butan-1-ol*

Present.

*Phosphoric acid*

Present.



## Tec-Guard Defend Synthetic EP Gear Oil ISO-460 & ISO-680

### Rhode Island "Right To Know" List

The following ingredients are listed or exempt:

*Ethyl acrylate*

Present.

*Ethylene oxide*

Present.

*Methyloxirane*

Present.

*1,4-dioxane*

Present.

*Butan-1-ol*

Present.

*Phosphoric acid*

Present.

### Minnesota "Right To Know" List

The following ingredients are listed or exempt:

*Ethyl acrylate*

Present.

*Ethylene oxide*

Present.

*Methyloxirane*

Present.

*1,4-dioxane*

Present.

*Butan-1-ol*

Present.

*Phosphoric acid*

Present.

### New Jersey "Right To Know" List

The following ingredients are listed or exempt:

*Bis(2-ethylhexyl) hydrogen phosphate*

Present.

*Ethyl acrylate*

Present.

*Ethylene oxide*

Present.

*Methyloxirane*

Present.

*1,4-dioxane*

Present.

*Butan-1-ol*

Present.

*Phosphoric acid*

Present.



## Tec-Guard Defend Synthetic EP Gear Oil ISO-460 & ISO-680

### Pennsylvania "Right To Know" List

The following ingredients are listed or exempt:

*Ethyl acrylate*

Present.

*Ethylene oxide*

Present.

*Methyloxirane*

Present.

*1,4-dioxane*

Present.

*Butan-1-ol*

Present.

*Phosphoric acid*

Present.

### Inventories

#### US - TSCA

All the ingredients are listed or exempt.

#### US - TSCA 12(b) Export Notification

None of the ingredients are listed or exempt.

### 16. Other information

|                                                                 |                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Abbreviations and acronyms used in the safety data sheet</b> | OSHA = Occupational Safety and Health Administration; DOT = Department Of Transport; SARA = Superfund Amendments and Reauthorization Act; CERCLA = Comprehensive Environmental; EPCRA = Emergency Planning and Community Right-to-Know Act; TSCA = Toxic Substances Control Act;                                                                        |
| <b>Classification abbreviations and acronyms</b>                | Skin Sens. = Skin sensitisation                                                                                                                                                                                                                                                                                                                         |
| <b>Key literature references and sources for data</b>           | Source: European Chemicals Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a>                                                                                                                                                                                                                                                          |
| <b>Training advice</b>                                          | Read and follow manufacturer's recommendations. Only trained personnel should use this material.                                                                                                                                                                                                                                                        |
| <b>Revision comments</b>                                        | This is first issue.                                                                                                                                                                                                                                                                                                                                    |
| <b>Revision date</b>                                            | 06/22/2026                                                                                                                                                                                                                                                                                                                                              |
| <b>Revision</b>                                                 | 0                                                                                                                                                                                                                                                                                                                                                       |
| <b>SDS No.</b>                                                  | 5677                                                                                                                                                                                                                                                                                                                                                    |
| <b>Hazard statements in full</b>                                | H227 Combustible liquid.<br>H302 Harmful if swallowed.<br>H311 Toxic in contact with skin.<br>H314 Causes severe skin burns and eye damage.<br>H317 May cause an allergic skin reaction.<br>H318 Causes serious eye damage.<br>H330 Fatal if inhaled.<br>H400 Very toxic to aquatic life.<br>H410 Very toxic to aquatic life with long lasting effects. |





## **Tec-Guard Defend Synthetic EP Gear Oil ISO-460 & ISO-680**

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.