

SECTION 4: FIRST AID MEASURES**4.1 Description of First Aid Measures****First Aid**

Inhalation: Remove person to fresh air. If irritation occurs or symptoms develop, get medical attention.

Skin contact: Remove contaminated clothing. Wash skin with soap and water. If irritation develops and persists, get medical attention. Launder clothing before reuse.

Eye contact: Immediately flush eyes with water while lifting the upper and lower lids. Get medical attention if irritation persists.

Ingestion: Rinse mouth with water. Do not induce vomiting unless directed by medical personnel. Never give anything by mouth to a person who is unconscious or convulsing. Get medical attention if symptoms develop.

4.2 Most important symptoms and effects, both acute and delayed: May cause mild eye and skin irritation. Inhalation of mists may cause upper respiratory tract irritation. Ingestion may cause gastrointestinal distress with nausea and diarrhea.

4.3 Indication of any immediate medical attention and special treatment needed: Immediate medical attention is not generally required.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing Media: Use water fog, foam carbon dioxide or dry chemical to extinguish a fire involving this product.

5.2 Special Hazards Arising from the Substance or Mixture: Product is not flammable or combustible but may burn in a fire. Combustion products are hazardous and may include oxides of carbon, nitrogen or phosphorus.

5.3 Advice for Fire-Fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for all fires involving chemicals. Cool fire exposed containers with water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate protective clothing and equipment as described in Section 8. Use caution – surfaces will be very slippery.

6.2 Environmental Precautions: Prevent spill from entering sewers and water courses. Report releases as required by local and national authorities.

6.3 Methods and Material for Containment and Cleaning Up: Contain and collect with an inert absorbent material. Place in an appropriate container for disposal. Clean spill area thoroughly.

6.4 Reference to Other Sections:

Refer to Section 8 for personal protective equipment and Section 13 for disposal information.

SECTION 7: HANDLING and STORAGE

7.1 Precautions for Safe Handling: Avoid breathing mists. Avoid contact with eyes, skin and clothing. Wash thoroughly with soap and water after handling. Keep away from open flames and hot surfaces.

7.2 Conditions for Safe Storage, Including any Incompatibilities: Store in a dry, cool, well-ventilated area. Keep in original containers. Store away from oxidizing agents.

7.3 Specific end use(s):

Industrial uses: Synthetic Chain Oil

Professional uses: Synthetic Chain Oil

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control Parameters:**

Chemical Name	EU IOEL	French OEL	German OEL	UK OEL
Synthetic Ester	None Established	None Established	None Established	None Established

8.2 Exposure Controls:

Appropriate Engineering Controls: Use with adequate general or local exhaust ventilation to minimize exposures levels.

Personal Protective Measures

Respiratory protection: None needed under normal use conditions. If exposure levels are excessive and irritation is experienced, an approved organic vapor/particulate respirator is recommended. Selection of respiratory protection depends on the contaminant type, form and concentration. Select in accordance with EN Standards and good Industrial Hygiene practice.

Skin protection: Impervious gloves recommended if needed to avoid prolonged skin contact.

Eye protection: Safety goggles recommended.

Other: None known.

SECTION 9: PHYSICAL and CHEMICAL PROPERTIES**9.1 Information on basic Physical and Chemical Properties**

Appearance (physical state, color, etc.): Amber oil

Odor: No characteristic odor

Odor threshold: Not determined	pH: Not applicable
Melting point/freezing point: Not determined	Boiling Point: Not determined
Flash point: >400°F (>204°C) COC (synthetic ester)	Evaporation rate (butyl acetate =1): <1
Flammability (solid, gas): Not applicable	VOC: Not determined
Flammable limits: LEL: Not determined	UEL: Not determined
Vapor pressure: Not determined	Vapor density: Not determined
Relative density: 0.91	Solubility(ies): Insoluble in water
Partition coefficient: n-octanol/water: Not available	Auto-ignition temperature: Not available
Decomposition temperature: Not available	Viscosity: >20 cSt @ 40°C
Explosive Properties: Not applicable	Oxidizing Properties: Not oxidizing

9.2 Other Information: None available

SECTION 10: STABILITY and REACTIVITY

10.1 Reactivity: Not reactive under normal conditions of use.

10.2 Chemical Stability: Stable.

10.3 Possibility of Hazardous Reactions: None known.

10.4 Conditions to Avoid: Extreme heat and open flames.

10.5 Incompatible Materials: Avoid oxidizing agents.

10.6 Hazardous Decomposition Products: Thermal decomposition may yield oxides of carbon, nitrogen and phosphorus.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on Toxicological Effects:****Potential Health Effects:**

Inhalation: Inhalation of mists from heated product may cause minor irritation of the mucous membranes and upper respiratory tract.

Ingestion: Ingestion may cause gastrointestinal distress with nausea and diarrhea.

Skin contact: May cause mild irritation and drying of the skin.

Eye contact: Contact may cause mild irritation with redness and tearing.

Chronic Effects: None known.

Sensitization: Components are not known to be sensitizers.

Skin corrosion/irritation: None of the components have been shown to cause skin irritation or corrosion.

Eye damage/ irritation: None of the components have been shown to cause eye irritation or damage.

Respiratory Irritation: No data available. Expected to cause only temporary irritation.

Respiratory Sensitization: No data available.

Skin Sensitization: No data available. None of the components have been shown to cause skin sensitization.

Germ Cell Mutagenicity: No adverse effects are expected. Components are not germ cell mutagens.

Carcinogenicity: None of the components of this product are listed as carcinogens by IARC or the EU CLP.

Reproductive Toxicity: No adverse effects are expected. Components are not reproductive toxins.

Specific Target Organ Toxicity:

Single Exposure: No data available.

Repeat Exposure: No data available.

Acute Toxicity Values:

Synthetic Ester: Oral Rat LD50 >2000 mg/kg, Inhalation rat LC50 >5 mg/L/4 hr, Dermal rat LD50 >2000 mg/kg

SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity:**

Synthetic Ester: 96 hr LL50 *Oncorhynchus mykiss* >100 mg/L, 48 hr EL50 *daphnia magna* >100 mg/L, 72 hr EL50 *Desmodesmus subspicatus* >100 mg/L

12.2 Persistence and degradability: Synthetic ester is inherently biodegradable.

12.3 Bioaccumulative Potential: Synthetic ester has a low potential to bioaccumulate in aquatic organisms.

12.4 Mobility in Soil: Synthetic ester is expected to have low mobility in soil.

12.5 Results of PBT and vPvB assessment: Not required.

12.6 Other Adverse Effects: No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods: Dispose in accordance with all local, state and federal regulations. No specific disposal method is recommended. It is the responsibility of the user, at the time of disposal, to determine whether the product meets the criteria for hazardous waste.

SECTION 14: TRANSPORTATION INFORMATION

	14.1 UN Number	14.2 UN Proper Shipping Name	14.3 Hazard Class(s)	14.4 Packing Group	14.5 Environmental Hazards
US DOT		Not Regulated			
Canadian TDG		Not Regulated			
EU ADR/RID		Not Regulated			
IMDG		Not Regulated			
IATA/ICAO		Not Regulated			

14.6 Special Precautions for User: None known.

14.7 Transport in Bulk According to Annex III MARPOL 73/78 and the IBC Code: Not applicable – product is transported only in packaged form.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

EU Regulations:

RoHS: Compliant

German WGK: 1

This SDS was prepared in accordance with EC No. 1907/2006 as amended. Classification under EC No. 1272/2008 as amended following the mixture rules.

15.2 Chemical safety assessment: Not required

SECTION 16: OTHER INFORMATION

CLP/GHS Classification and H Phrases for Reference (See Section 3)

None

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