SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of the substance/preparation	**ISO 32 Hydraulic Oil – 10557**
Use of the substance/preparation	Hydraulic Oil
Version No.	02
Revision date	17-September-2012
CAS No.	Mixture
Supplier	**Plews & Edelmann** 1550 Franklin Grove Road Dixon, IL 61021 815-288-3344
Manufacturer Address	Environmental Lubricants Manufacturing, Inc. 311 B Ave -Grundy Center, IA 50638
SDS Questions:	**(**319) 824-5203
Emergency telephone:	CHEMTREC: (800) 824-9300

2. HAZARDS IDENTIFICATION

This preparation is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Physical hazards	Not classified as a physical hazard.
Health hazards	Not Classified as a health hazard.
Environmental hazards	Not Toxic-Not classified as an environmental hazard.
Specific hazards	May form vapors or oil mists during mechanical action or at elevated temperatures which may be irritating to the respiratory tract. Excessive inhalation of oil mist may affect respiratory system. Dermatitis after prolonged exposure. Prolonged or repeated contact with skin may cause redness, itching, irritation, eczema/chapping and oil acne.
Main symptoms	Irritant effects. Irritation of eyes and mucous membranes.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	**Classification**	**CAS-No.**	**%**	**EC-No. / REACH Registration No.**	**Notes**
Vegetable Oil	-	120962-03-0	60-100	273-315-5	
2-tert-butyl-hydroquinone		1948-33-0	0 - 0.5	217-752-2	

Composition comments The full text for all R-phrases is displayed in Section 16. All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. FIRST-AID MEASURES

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Remove contaminated clothes and rinse skin thoroughly with water for at least 15 minutes. In case of rashes, wounds or other skin disorders: Seek medical attention and bring along these

	instructions.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention if irritation develops or persists.
Ingestion	Drink 1 or 2 glasses of water. Get medical attention if any discomfort continues.
Most important symptoms and Effects	Symptoms include itching, burning, redness, and tearing of eyes.
General advice	Get medical attention if any discomfort develops.
Notes to physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Dry chemical, foam, carbon dioxide.
Extinguishing media which must not be used for safety reasons	Do not use water jet as an extinguisher, as this will spread the fire.
Unusual fire & explosion Hazards	None known
Specific hazards	Thermal decomposition may produce smoke, oxides of carbon and lower molecular weight organic compounds whose composition have not been characterised.
Special protective equipment for fire-fighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.
Fire fighting equipment/instructions	Move containers from fire area if you can do it without risk. Use water spray to cool unopened containers. Cool containers with flooding quantities of water until well after fire is out.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Ensure adequate ventilation. Remove sources of ignition. For personal protection, see Section 8. In case of spills, beware of slippery floors and surfaces..
Environmental precautions	Do not allow to enter drains, sewers or watercourses. Collect and dispose of spillage as indicated in Section 13. Contact local authorities in case of spillage to drain/aquatic environment.
Methods for cleaning up	Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Small Spills: Absorb spillage with oil-absorbing material. Large Spills: Absorb spilled substance with sand or earth.

7. HANDLING AND STORAGE

Handling	Wear appropriate personal protective equipment. Avoid inhalation of oil mist and contact with skin and eyes. Handle and open container with care. Use work methods which minimize production of vapors and mists. Observe good industrial hygiene practices.
Storage	Keep away from heat, sparks and open flame. Store in a cool and well-ventilated place. Store away from incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits	No exposure limits noted for ingredient(s).
Exposure controls	Provide adequate ventilation and minimize the risk of inhalation of vapors and oil mist.

Occupational exposure controls

Respiratory protection	No personal respiratory protective equipment normally required. In case of inadequate ventilation or risk of inhalation of oil mist, suitable respiratory equipment with combination filter (type A2/P2) can be used. Seek advice from local supervisor.
Hand protection	Wear protective gloves. Nitrile gloves are recommended. Suitable gloves can be recommended by the glove supplier.
Eye protection	If risk of splashing, wear safety goggles or face shield.
Skin and body protection	Wear suitable protective clothing. Frequent change of gloves is advisable.
General	Use personal protective equipment as required. Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
Environmental exposure Controls	Contain spills and prevent releases and observe national regulations on emissions.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practices. Wash hands after handling. Launder contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Oily Liquid.
Physical state	Liquid.
Form	Liquid.
Colour	Amber.
Odour	Characteristic vegetable oil.
Odour threshold	Not available.
pH	Not available.
Boiling point	Not available.
Flash point	208 °C
Flammability	°C
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Vapour pressure	< 0.5 mm Hg at 20 °C
Relative density	0.88
Solubility (water)	Practically insoluble
Partition coefficient (n-octanol/water)	Not available.
Viscosity	34 cst @ 40 °C
Vapour density	> 1 (Air = 1)
Evaporation rate	< 1 (n-Butylacetate = 1)
Melting point	Not available.
Freezing point	Not available.

Auto-ignition temperature	Not available.
VOC	0 %

10. STABILITY AND REACTIVITY

Stability	Stable at normal conditions.
Conditions to avoid	High temperatures. Exposure to light. Contact with incompatible materials.
Materials to avoid	Strong oxidising agents.
Hazardous decomposition Products	At thermal decomposition temperatures, carbon monoxide and carbon dioxide. Nitrogen oxides.
Hazardous polymerization	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity	May form vapours or oil mists during mechanical action or at elevated temperatures which may be irritating to respiratory tract. Excessive inhalation of oil mist may affect respiratory system. Causes skin and eye irritation. Swallowing may cause gastrointestinal irritation.
Routes of exposure	Eye contact. Inhalation. Skin contact.
Chronic toxicity	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis
Sensitisation	The product contains a small amount of sensitising substance which may provoke an allergic reaction among sensitive individuals.
Carcinogenicity	IARC not listed.
Mutagenicity	No test data available for the product.
Reproductivity	No test data available for the product.
Epidemiology	No epidemiological data is available for this product.
Local effects	Irritating to eyes and skin. May cause redness and pain.

12. ECOLOGICAL INFORMATION

Ecotoxicity	The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment
Mobility	The product is immiscible with water and will spread on the water surface.
Persistence and degradability	No data available.
Bioaccumulation	No data available.

13. DISPOSAL CONSIDERATIONS

Disposal instructions	Dispose in accordance with all applicable regulations.
Waste from residues / unused Products	Dispose of in accordance with local regulations.
EU waste codes	13 08 99*

14. TRANSPORT INFORMATION

ADR	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.

IMDG Not regulated as dangerous goods.

15. REGULATORY INFORMATION

Other regulations This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006 as amended.

16. OTHER INFORMATION

Wording of the R-phrases in sections 2 and 3 This preparation is not classified as dangerous according to Directive 1999/45/EC

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

Disclaimer The information given is based on data available for the material, the components of the material, and similar materials.

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