

SAFETY DATA SHEET

According to the Hazard Communication Standard, 29 CFR 1910.1200

Tec-Guard Defend RO46 Machine Oil

Date of the previous version: 2015-04-02

Revision Date: 06/22/2026

Version 1.01

1. IDENTIFICATION

Product identifier

Product name Tec-Guard Defend RO46 Machine Oil

Other means of identification

Product Code(s) 1042724190046

Substance/mixture Mixture

Recommended use of the chemical and restrictions on use

Identified uses Circulating oil.

Uses advised against Do not use for any purpose other than the one for which it is intended

Details of the supplier of the safety data sheet

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

E-mail Address info@tec-guard.com

Emergency telephone number

Company Phone Number (800) 522-1150
Emergency telephone 1-800-424-9300, CHEMTREC

2. HAZARDS IDENTIFICATION

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Label elements

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Tec-Guard Defend RO46 Machine Oil

Date of the previous version: 2015-04-02

Revision Date: 06/22/2026

Version 1.01

Unknown Acute Toxicity

No information available

Hazards not otherwise classified (HNOC)

None known

Other information

Physical-Chemical Properties Contaminated surfaces will be extremely slippery.

Environmental properties Should not be released into the environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The product contains no substances which at their given concentration, are considered to be hazardous to health.

4. FIRST AID MEASURES

First aid measures for different exposure routes

General advice	IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.
Eye contact	Rinse immediately with plenty of water and seek medical advice.
Skin contact	Remove contaminated clothing and shoes. Wash off with soap and water. Wash contaminated clothing before reuse.
Inhalation	Inhalation of high concentrations of vapor or aerosols may cause irritation of the upper respiratory tract.
Ingestion	If swallowed, do not induce vomiting - seek medical advice.

Most important symptoms/effects, acute and delayed

Skin contact	Not classified.
Eye contact	Not classified.
Inhalation	Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system.
Ingestion	Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Tec-Guard Defend RO46 Machine Oil

Date of the previous version: 2015-04-02

Revision Date: 06/22/2026

Version 1.01

Symptoms Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Itching. Redness.

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

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Foam. Carbon dioxide (CO₂). ABC powder. Water spray.

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

Special Hazard Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.

Explosion Data

Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective Equipment and Precautions for Firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Evacuate non-essential personnel.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

General Information Do not touch or walk through spilled material. Contaminated surfaces will be extremely slippery. Avoid contact with the skin and the eyes. Use personal protective equipment. Evacuate personnel to safe areas. Ensure adequate ventilation.

Other information See Section 12 for additional information.

Environmental precautions

General Information Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. Try to prevent the material from entering drains or water courses. See Section 12 for additional Ecological Information.

Methods and materials for containment and cleaning up

Methods for cleaning up Dam up. Keep in suitable, closed containers for disposal. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Use mechanical means such as pumps, skimmers and absorbent materials.

7. HANDLING AND STORAGE

Precautions for safe handling

Tec-Guard Defend RO46 Machine Oil

Date of the previous version: 2015-04-02

Revision Date: 06/22/2026

Version 1.01

Advice on safe handling	When using, do not eat, drink or smoke. For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing.
Hygiene measures	Regular cleaning of equipment, work area and clothing is recommended. Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. Use personal protective equipment as required. Wash hands before breaks and at the end of workday. Avoid breathing vapors, mist or gas. Avoid prolonged and repeated contact with the skin, especially with used or waste product. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets.
<u>Conditions for safe storage, including any incompatibilities</u>	
Technical measures/Storage conditions	Keep away from food, drink and animal feedingstuffs. Keep in a bunded area. Keep preferably in the original container. Otherwise reproduce all indication of the regulation label on the new container. Do not remove the hazard labels of the containers (even if they are empty). Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts. Protect from frost, heat and sunlight. Protect from moisture. Keep in properly labeled containers.
Materials to Avoid	Strong oxidizing agents. Strong acids. Strong bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits	Mineral oil mist: USA: OSHA (PEL) TWA 5 mg/m ³ , NIOSH (REL) TWA 5 mg/m ³ , STEL 10 mg/m ³ , ACGIH (TLV) TWA 5 mg/m ³ (highly refined).
------------------------	--

Exposure controls

Engineering Measures	Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.
-----------------------------	--

Individual protection measures, such as personal protective equipment

General Information	If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied.
Eye/Face Protection	If splashes are likely to occur, wear: Goggles. Safety glasses with side-shields.
Skin and body protection	Wear suitable protective clothing. Protective shoes or boots.

Tec-Guard Defend RO46 Machine Oil

Date of the previous version: 2015-04-02

Revision Date: 06/22/2026

Version 1.01

Hand Protection	Protective gloves. Neoprene gloves. Nitrile rubber. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Hydrocarbon-proof gloves.
Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
Hygiene measures	Regular cleaning of equipment, work area and clothing is recommended. Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. Use personal protective equipment as required. Wash hands before breaks and at the end of workday. Avoid breathing vapors, mist or gas. Avoid prolonged and repeated contact with the skin, especially with used or waste product. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties

Color	amber		
Physical State @20°C	liquid		
Odor	Petroleum distillates		
Odor Threshold	No information available		
<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH		Not applicable	
Melting point/range		No information available	
Boiling point/boiling range		Not applicable	
Flash point	213 °C		Cleveland Open Cup (COC)
	415 °F		ASTM D 92
			Cleveland Open Cup (COC).
			ASTM D 92.
Evaporation rate		No information available	
Flammability Limits in Air		No information available	
upper	-	No information available	
Lower	-	No information available	
Vapor Pressure		No information available	
Vapor density		No information available	
Relative density	0.872	@ 15 °C	
Density	872 kg/m ³	@ 15 °C	
Water solubility		Not applicable	

Tec-Guard Defend RO46 Machine Oil

Date of the previous version: 2015-04-02

Revision Date: 06/22/2026

Version 1.01

Solubility in other solvents		No information available	
logPow		No information available	
Autoignition temperature		No information available	
Decomposition temperature		No information available	
Viscosity, kinematic	46 mm ² /s	@ 40 °C	ASTM D 2270
Explosive properties	Not explosive		
Oxidizing Properties	Not applicable		
Possibility of hazardous reactions	Not applicable		
<u>Other information</u>			
Specific Gravity	0.872	@ 15 °C	
Freezing Point		No information available	
Pour point	-15 °C		ASTM D 97

10. STABILITY AND REACTIVITY

<u>Reactivity</u>	No information available.
<u>Chemical stability</u>	Stable under recommended storage conditions.
<u>Possibility of hazardous reactions</u>	None under normal processing.
<u>Conditions to Avoid</u>	Heat (temperatures above flash point), sparks, ignition points, flames, static electricity.
<u>Incompatible Materials</u>	Strong oxidizing agents. Strong acids. Strong bases.
<u>Hazardous Decomposition Products</u>	Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product Information Product does not present an acute toxicity hazard based on known or supplied information.

Information on likely routes of exposure

Principle Routes of Exposure Inhalation, Ingestion, Eye contact, Skin contact.

Numerical measures of toxicity

ATEmix (oral)	5027 mg/kg
ATEmix (dermal)	5027 mg/kg
Inhalation	
ATEmix (inhalation-dust/mist)	5.1 mg/l
ATEmix (inhalation-vapor)	20.2 mg/l

Information on toxicological effects

Tec-Guard Defend RO46 Machine Oil

Date of the previous version: 2015-04-02

Revision Date: 06/22/2026

Version 1.01

Symptoms	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Itching. Redness.
Skin contact	Not classified.
Eye contact	Not classified.
Inhalation	Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system.
Ingestion	Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	Not classified as a sensitizer.
Carcinogenicity	Contains no ingredient listed as a carcinogen.

Mutagenicity	Contains no ingredient listed as a mutagen.
Reproductive toxicity	This product does not present any known or suspected reproductive hazards.
Other adverse effects	Characteristic skin lesions (pimples) may develop following prolonged and repeated exposures (contact with contaminated clothing).
Aspiration Hazard	Not classified.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Acute aquatic toxicity - Product Information

No experimental data available

Acute aquatic toxicity - Component Information

No information available

Chronic aquatic toxicity - Product Information

No experimental data available

Chronic aquatic toxicity - Component Information

Effects on terrestrial organisms No experimental data available .

Persistence and degradability

Tec-Guard Defend RO46 Machine Oil

Date of the previous version: 2015-04-02

Revision Date: 06/22/2026

Version 1.01

General Information No information available.

Bioaccumulative potential

Product Information No information available.

logPow No information available

Component Information No information available.

Mobility

Soil Given its physical and chemical characteristics, the product generally shows low soil mobility

Air Loss by evaporation is limited

Water The product is insoluble and floats on water

Other adverse effects

General Information No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste Disposal Methods Dispose of in accordance with local regulations.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

MEX Not regulated

ICAO/IATA Not regulated

Tec-Guard Defend RO46 Machine Oil

Date of the previous version: 2015-04-02

Revision Date: 06/22/2026

Version 1.01

IMDG/IMO Not regulated

ADR/RID Not regulated

ADN Not regulated

15. REGULATORY INFORMATION

International Inventories All the substances contained in this product are listed or exempted from listing in the following inventories:
U.S.A. (TSCA)

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	no
Chronic Health Hazard	no
Fire Hazard	no
Sudden Release of Pressure Hazard	no
Reactive Hazard	no

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:***

Chemical Name	Weight %	California Prop. 65
Toluene - 108-88-3	<0.1	Developmental Female Reproductive

Tec-Guard Defend RO46 Machine Oil

Date of the previous version: 2015-04-02

Revision Date: 06/22/2026

Version 1.01

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois
Vegetable oil polymer ^	X			
Distillates (petroleum), hydrotreated light paraffinic 64742-55-8	X			

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazard 1	Flammability 1	Instability 0	Physical and chemical hazards -
<u>HMIS</u>	Health Hazard 1	Flammability 1	Physical Hazard 0	Personal protection X

NFPA (National Fire Protection Association)

HMIS (Hazardous Material Information System)

Hazards are split into categories each with a 0 to 4 rating, 0 meaning no hazard and 4 meaning high hazard

Revision Date: 06/22/2026
Revision Note *** Indicates updated section
Abbreviations, acronyms

Legend

Section 8
 ACGIH - American Conference of Governmental Industrial Hygienists
 OSHA - Occupational Safety and Health Administration
 NIOSH - National Institute for Occupational Safety and Health
 TLV - Threshold Limit Values
 PEL - Permissible Exposure Limits
 IDHL - Immediately Dangerous to Life or Health concentrations
 TWA - Time Weight Average
 STEL - Short Term Exposure Limits
 S* - Skin notation
 TSCA - Toxic Substance Control Act

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

End of the safety data sheet