

# SAFETY DATA SHEET

**590 Marine TPEO 30TBN SAE 40**  
**595 Marine TPEO 15TBN SAE 40**

## Section 1. Identification

**GHS product identifier** : 590 Marine TPEO 30TBN SAE 40  
595 Marine TPEO 15TBN SAE 40

**Product type** : Liquid

**Identified uses** : Diesel engine oil for medium and high speed trunk piston engines.

**Supplier's details** : Schaeffer Mfg. Company  
102 Barton Street  
Saint Louis, Missouri 63104  
Tel: 314-865-4100  
Fax: 314-865-4107  
Toll Free: 1-800-325-9962  
E-Mail: [safety@schaefferoil.com](mailto:safety@schaefferoil.com)  
Web: [www.schaefferoil.com](http://www.schaefferoil.com)

**Emergency Phone Number** : +1 314 865-4105 (24-hour response number)  
(with hours of operation)

## Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

**Classification of the substance or mixture** : Reproductive Toxicity – Category 1B  
Serious Eye Damage/Eye Irritation – Category 2A

### GHS label elements

**Hazard pictograms**



**Signal word**

**Hazard statements**

### Precautionary statements

- : Danger
- : May damage fertility or the unborn child.
- : Causes serious eye irritation.
- : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

## Section 2. Hazards identification

- Prevention** : Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling
- Response** : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF EXPOSED OR CONCERNED: Get medical advice/attention
- Storage** : Store in well-ventilated place. Keep cool.
- Disposal** : Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
- Hazards not otherwise classified** : None known.

## Section 3. Composition/information on ingredients

**Substance/mixture:** Mixture

Ingredient Name	%	CAS number
Severely hydrotreated heavy paraffinic distillate	60-90	64742-54-7
Residual oils (petroleum), solvent-dewaxed	10-30	64742-62-7
Phosphorodithioic acid, alkyl esters, zinc salts	1-3	Trade secret
Phenol, dodecyl-, sulfurized, carbonates, calcium salts, overbased	0-3	68784-26-9
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	0-1	68584-23-6
Sulfonic acids, petroleum, calcium salts	<0.5	61789-86-4
Tetrapropenylphenol	<0.5	74499-35-7

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- Skin contact** : Wash skin thoroughly with soap and water. Get medical attention if symptoms occur. Remove contaminated clothing and wash before re-use.
- Ingestion** : Wash out mouth with water. Do not induce vomiting. Get medical attention if symptoms occur.

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

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Inhalation may cause irritation, coughing, shortness of breath.
- Skin contact** : No data available.
- Ingestion** : No data available.

## Section 4. First aid measures

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : CO<sub>2</sub>, dry chemical or foam. Water can be used to cool and protect exposed material.
- Unsuitable extinguishing media** : Do not use water jet as an extinguisher, as this will spread the fire.
- Specific hazards arising from** : No specific fire or explosion hazard.
- Hazardous thermal decomposition products** : No specific data.
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
- For emergency** : If specialized clothing is required to deal with spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel."
- Environmental precautions** : U.S.A. regulations may require reporting spills of this material that could reach any surface waters. Report spills to all applicable Federal, State, Provincial and local authorities and/or the United States National Response Center at (800) 424-8802 as appropriate or required.

## Section 6. Accidental release measures

### Methods and materials for containment and clean up

- Small spill** : Stop leak if without risk. Move containers from spill area. Absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environments. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage: including any incompatibilities** Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls and personal protection

### Control parameters

#### Occupational exposure limits

<b>Ingredient name</b>	<b>Exposure limits</b>
Severely hydrotreated heavy paraffinic distillate	<b>OSHA PEL (United States, 5/2018)</b> TWA: 5 mg/m <sup>3</sup> 8 hours.
	<b>ACGIH TLV (United States, 3/2018)</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Inhalable fraction
	<b>NIOSH REL (United States, 10/2016)</b> TWA: 5 mg/m <sup>3</sup> 10 hours. Form: Mist
	STEL: 10 mg/m <sup>3</sup> 15 minutes. Form: Mist
Residual oils (petroleum), solvent-dewaxed	<b>OSHA PEL (United States, 5/2018)</b> TWA: 5 mg/m <sup>3</sup> 8 hours.
	<b>ACGIH TLV (United States, 3/2018)</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Inhalable fraction
	<b>NIOSH REL (United States, 10/2016)</b> TWA: 5 mg/m <sup>3</sup> 10 hours. Form: Mist
	STEL: 10 mg/m <sup>3</sup> 15 minutes. Form: Mist
Phosphorodithioic acid, -alkyl esters, zinc salts	None established.
Phenol, dodecyl-, sulfurized, carbonates, calcium salts, overbased	None established.
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	None established.
Sulfonic acids, petroleum, calcium salts	None established.
Tetrapropenylphenol	None established.

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

#### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Wear eye protection such as safety glasses, chemical goggles, or face shields if engineering controls or work practices are not adequate to prevent eye contact.

#### Skin protection

**Hand protection** : Use nitrile or oil resistant gloves.

## Section 8. Exposure controls and personal protection

- Body protection** : Personal protective clothing such as gloves, aprons, boots and complete facial protection should be selected based on the task being performed and the risks involved. Users should determine acceptable performance characteristics of protective clothing. Consider physical requirements and other substances present when selecting protective clothing.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.
- Respiratory protection** : If a risk assessment indicates that respiratory protection is required, use a properly fitted, air-purifying or supplied air respirator that complies with an approved standard. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and chemical properties

### Appearance

Physical state	: Liquid. [Clear.]
Color	: Green.
Odor	: Petroleum.
Odor threshold	: Not available.
pH	: Not available.
Melting point/Dropping point	: Not available.
Boiling pint	: Not available.
Flash point	: 243°C (470°F)
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: >1 [Air = 1]
Relative density	: 0.870
Solubility	: Insoluble.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Kinematic (100°C): 12.5 to 16.3 cSt
Volatility	: Not available.
VOC content	: Not available.

## Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
- Possibility of hazardous** : Will not occur.

## Section 10. Stability and reactivity

**Conditions to avoid** : No specific data.

**Incompatible materials** : Strong acids, bases and oxidizers.

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Severely hydrotreated heavy paraffinic distillate	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation	Rat	>5.53 mg/l	4h
Phenol, dodecyl-, sulfurized, carbonates, calcium salts, overbased	LD50 Dermal	Rabbit	>4000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation	Rat	>1.67 mg/kg	*

\*Study scientifically unjustified. Exposure duration was not 4 hours. Can not be classified according to EU as the animals were exposed for 1 hour.

#### Irritation/Corrosion

There is no data available.

#### Sensitization

There is no data available.

#### Carcinogenicity

There is no data available.

#### Specific target organ toxicity (single exposure)

There is no data available.

#### Specific target organ toxicity (repeated exposure)

There is no data available.

#### Aspiration hazard

There is no data available.

**Information on the likely routes of exposure** : Dermal contact. Eye contact. Inhalation. Ingestion.

#### Potential acute health effects

**Eye contact** : Causes serious eye irritation.  
**Inhalation** : Harmful if inhaled.  
**Skin contact** : Causes skin irritation.  
**Ingestion** : No data available

## Section 11. Toxicological information

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Causes serious eye irritation.
- Inhalation** : May cause irritation, coughing, shortness of breath.
- Skin contact** : Prolonged or repeated skin contact may cause dermatitis. Symptoms may include redness, edema, drying and cracking of the skin.
- Ingestion** : No known significant effects or critical hazards.

### Potential chronic health effects

- General** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : May damage fertility or the unborn child.
- Fertility effects** : May damage fertility or the unborn child.

### Numerical measures of toxicity

Acute toxicity estimates : There is no data available.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Phosphorodithioic acid, alkyl esters, zinc salts	LC50 >10 mg/l	<i>Pimephales promelas</i>	-
	EC50 >1 mg/l	<i>Daphnia Magna</i>	-
	NOEC 10 mg/l (acute)	<i>Pimephales promelas</i>	-
	NOEC < 1 mg/l (chronic)	Crustacea	-
Phenol, dodecyl-, sulfurized, carbonates, calcium salts, overbased	LC50 >40 mg/l	Other aquatic organisms	-

### Persistence and degradability

There is no data available.

### Bioaccumulative potential

There is no data available.

### Mobility in soil

- Soil/water partition coefficient ( $K_{oc}$ )** : Not available.

**Other adverse effects** : No data available.



## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste packaging should be recycled. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

**DOT Classification (bulk only)** : Not regulated.

**IMDG** : Not regulated.

**IATA/ICAO** : Not regulated.

**AERG** : Not applicable

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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

## Section 15. Regulatory information

**U.S. Federal regulation** : **United States inventory (TSCA 8b):** All components are listed or exempted.

**SARA 302/304** : Not applicable

**SARA 304** : Not applicable

**SARA 311/31** : Not applicable.

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

**Health:** 0      **Flammability:** 1      **Physical hazards:** 0

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

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

### National Fire Protection Association (U.S.A.)

**Health:** 0      **Flammability:** 1      **Instability:** 0

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