

Material Safety Data Sheet



IDENTIFICATION

① Name of the Product

XTeer TOP

② Recommended Use

Engine Oil

③ Information of Manufacturer

ASPAC-OIL Co., Ltd.

43 Hwasan 1-gil, Onsan-eup, Ulju-gun, Ulsan, Korea

Telephone No. +82-52-239-2161

④ Information of Supplier

Hyundai Oilbank Co., Ltd.

20F, Yonsei Severance Bldg., Namdaemunno 5-ga, Jung-gu, Seoul, Korea

Telephone No. +82-2-2004-3000

HAZARD(s) IDENTIFICATION

① Classification

Skin corrosion / Skin sensitization : 2

Severe eye damage / Eye irritation : 2

② Label element, including precautionary statements

● Symbols



● Signal word(s)

Warning

Material Safety Data Sheet



- **Hazard statement(s)**

- Harmful if swallowed (H302)
- Causes skin irritation (H315)
- Causes serious eye irritation (H319)

- **Precautionary statement(s)**

- ◆ Prevention: Do not eat, drink or smoke when using this product. (P270)
 - Wash parts of the body thoroughly after handling (P264)
 - Wear protective gloves/protective clothing/eye protection/face protection. (P280)

 - ◆ Response: If on skin, wash with plenty of water (P302 + P352)
 - If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305 + 351 + 338)
 - Take off contaminated clothing (P362)
 - If inhaled, remove person to fresh air and keep comfortable for breathing (P304 + 340)
 - If on skin, call a poison center, if you feel unwell (P302+312)
 - If skin irritation occurs, get medical advice / attention. (P332+313)
 - If eye irritation persists, get medical advice / attention. (P337 + 313)

 - ◆ Storage: Store in a closed container (P404)

 - ◆ Disposal: Dispose of contents / container according to the related local laws (P501)
- **Other hazards which do not result in classification**
 - ◆ NFPA Code : Health:1, Flammability: 1, Reactivity: 0

COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Identity	Common Name	CAS No.	Percentages(%)
Severely Hydrotreated	Highly Refined Mineral Oil	64742-54-7	75~85 %

Material Safety Data Sheet



Heavy Paraffinic Distillate			
Viscosity modifier additive for lubricating oil		Mixture	5~ 10 %
Additive for car engine lubricating oil		Mixture	10 ~ 15 %
Pour Point Depressant		Mixture	Less than 1 %

FIRST AID MEASURES

① Eye Contact

Thoroughly flush the eyes with large amounts of clean low-pressure water for at least 15 minutes, occasionally lifting the upper and lower eyelids.

If irritation persists, seek medical attention.

② Skin contact

Remove contaminated clothing and wash skin with plenty of soap and water.

Flush with plenty of water for 15 minutes.

If sticky, use waterless cleaner first.

Seek medical attention if ill effect or irritation develops.

③ Inhalation

If overcome by exposure, remove person to fresh air immediately.

Give oxygen or artificial respiration as needed.

Obtain emergency medical attention.

Prompt action is essential.

④ Ingestion

Do not induce vomiting.

Obtain emergency medical attention.

Prompt action is essential

⑤ Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

Material Safety Data Sheet



FIRE-FIGHTING MEASURES

① Suitable extinguishing media

SMALL FIRE: Use dry chemicals, CO₂, water spray or alcohol-resistant foam.

LARGE FIRE: Use water spray, water fog or alcohol-resistant foam

② Unsuitable extinguishing media

Do not use water in a jet.

③ Special hazards arising from the chemical

Thermal decomposition may produce a complex mixture of airborne solid and liquid particulates and gases, carbon monoxide, unidentified organic and inorganic compounds.

④ Special protective equipment and precautions for firefighters

Wear an approved positive pressure self-contained breathing apparatus and firefighter turnout gear.

Heat from fire can generate flammable vapor.

When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined.

Vapors may be heavier than air and travel long distances along the ground before igniting and flashing back to vapor source.

Fine sprays/mists may be combustible at temperatures below normal flash point.

Fight fire from a safe distance/protected location.

Heat may build enough pressure to rupture closed containers/spreading fire/increasing risk of burns/injuries.

Use water spray/fog for cooling. Avoid frothing/steam explosion.

Burning liquid may float on water.

Although water soluble, may not be practical to extinguish fire by water dilution.

Notify authorities immediately if liquid enters sewer/public waters.

ACCIDENTAL RELEASE MEASURES

Material Safety Data Sheet



① Personal precautions, protective equipment and emergency procedures

Wear chemical resistant gloves such as: Butyl rubber.

Depending on the conditions of use, protective gloves, apron, boots, head and face protection should be worn.

The equipment must be cleaned thoroughly after each use.

② Environmental precautions

May contaminate water supplies/pollute public waters. Evacuate/limit access.

Equip responders with proper protection.

Prevent flow to sewer/public waters.

Stop release.

Notify fire and environmental authorities.

Restrict water use for cleanup.

③ Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area).

Stop leak if you can do it without risk.

All equipment used when handling the product must be grounded.

Do not touch or walk through spilled material.

Prevent entry into waterways, sewer, basements or confined areas.

A vapor suppressing foam may be used to reduce vapors.

Use clean non-sparking tools to collect absorbed material.

Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Large Spills: Water spray may reduce vapor but may not prevent ignition in closed spaces.

Recover by pumping or with suitable absorbent.

HANDLING AND STORAGE

① Precautions for safe handling

Avoid contact with skin.

Use proper bonding and/or grounding procedures.

Prevent small spills and leakage to avoid slip hazard.

Material can accumulate static charges which may cause an electrical spark.

② Conditions for safe storage. including incompatibilities

Material Safety Data Sheet



Keep container closed.

Handle containers with care.

Open slowly in order to control possible pressure release.

Store in a cool, well-ventilated area.

Storage containers should be grounded and bonded.

Store only in the original container.

EXPOSURE CONTROLS/PERSONAL PROTECTION

① Exposure limits in the air of the workplace, biological limit values

● Mineral Oil Mist

- ◆ OSHA TWA: 5mg/m³
- ◆ ACGIH TWA: 5mg/m³, STEL: 10mg/m³
- ◆ NIOSH TWA (10hr): 5mg/m³, STEL 10mg/m³

② Appropriate engineering controls

The level of protection and types of controls necessary will vary depending upon potential exposure conditions.

Control measures to consider: Adequate ventilation should be provided so that exposure limits are not exceeded.

Use explosion-proof ventilation equipment.

③ Respiratory protection

If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include: Half-face filter respirator.

④ Eye protection

Eye protection such as chemical splash goggles and/or face shield must be worn when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapor.

⑤ Hand protection

Wear chemical resistant gloves such as: Butyl rubber.

Material Safety Data Sheet



⑥ Body protection

Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include: If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended.

PHYSICAL AND CHEMICAL PROPERTIES

① Appearance (physical state, colour etc)

Clear brown liquid

② Odor

Mild

③ Odor threshold

No data available

④ pH

No data available

⑤ Melting point/freezing point

-40°C

⑥ Initial boiling point and boiling range

No data available

⑦ Flash point

More than 200°C

⑧ Evaporation rate

No data available

Material Safety Data Sheet



⑨ **Flammability(solid, gas)**

No data available

⑩ **Upper/lower flammability or explosive limits**

No data available

⑪ **Solubility(ies)**

No data available

⑫ **Vapour density**

No data available

⑬ **Specific gravity**

0.848 (Water=1) 15°C

⑭ **Partition coefficient: n-octanol/water**

No data available

⑮ **Viscosity**

Approximately 36.1cSt at 40°C, 6.8cSt at 100°C, VI: 152

STABILITY AND REACTIVITY

① **Chemical stability**

Material is stable under normal conditions

② **Possibility of hazardous reactivity**

None are known

③ **Conditions to avoid**

Heat, sparks, open flame, other ignition sources, and oxidizing conditions

④ **Incompatible materials**

Strong oxidizers, Amine

Material Safety Data Sheet



⑤ Hazardous decomposition products

Carbon oxides (CO, CO₂), Hydrogen sulfide

TOXICOLOGICAL INFORMATION

① Information on the likely routes of exposures

Inhalation exposure: May cause slight irritation.

Ingestion exposure: May cause vomit, coughing, shortness of breath, dizziness.

Skin exposure: May cause slight skin irritation.

Eye exposure: May cause slight eye irritation.

② Delayed and immediate effects and also chronic effects from short and long term exposure

Oral- LD50(rat) >5000mg/kg

Skin- LD50(rabbit): >5000mg/kg

Inhalation: LC50(rat): 200mg/L-4h

Skin corrosion/irritation: May cause slight skin irritation.

Serious eye damage/irritation: May cause slight eye irritation.

Respiratory sensitization: Not expected to be a sensitizer.

Skin sensitization: Not expected to be a sensitizer.

Carcinogenicity: Not applicable

Germ cell mutagenicity: Not applicable

Reproductive toxicity: Not applicable

Specific target organ systemic toxicity-single exposure: Not applicable

Specific target organ systemic toxicity-repeated exposure: Not applicable

Aspiration hazard: No data available

③ Numerical measures of toxicity(such as acute toxicity estimate)

No data available

ECOLOGICAL INFORMATION

① Aquatic, terrestrial organisms toxicity

There is no evidence to suggest bioaccumulation will occur.

Material Safety Data Sheet



② Persistence and degradability

Expected to be biodegradable.

③ Bioaccumulative potential

Not applicable

④ Mobility in soil

Accidental spillage may lead to penetration in the soil and groundwater.

⑤ Other adverse effects

Not applicable

DISPOSAL CONSIDERATIONS

① Disposal methods

Use only licensed transporters and permitted facilities for waste disposal

② Disposal considerations(Specify disposal container and methods)

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes.

It does not exhibit the hazardous characteristics of ignitability, corrosivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP).

However, used product may be regulated.

TRANSPORT INFORMATION

This product is not classified as dangerous for this mode of transport. Therefore UN Number, UN proper Shipping name, transport hazard class, packing group, environmental hazards, special precautions for user do not apply.

Material Safety Data Sheet



REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product in question

Industrial Safety Health Law Chapter 37, 38(KOREA): All components are listed or exempted.
US inventory(TSCA 3b), OSHA(USA), EPCRA 302, 304(USA): All components are exempted.
AICS(Australia), IECSC(China), ENCS(Japan): All components are exempted or listed.

OTHER INFORMATION

① References and sources for data

Globally Harmonized System of classification and labelling of chemicals(GHS), First revised edition, United Nations.
United States National Library of Medicine.
EINECS (European Inventory of Existing Commercial chemical Substances)
IARC(International Agency for Research on Cancer.)
NIOSH (The National Institute for Occupational Safety and Health)
ACGIH (American Conference of Governmental Industrial Hygienists)
IUCLID Data
ICSC (International Chemical Safety Cards)- ILO
Transport of Dangerous Goods-UN
Korea Occupational Safety & Health Agency
U.S Department of Health and Human Services.
MSDS of raw material from supplier

② Originated date

April, 22, 2013

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Material Safety Data Sheet

