

SAFETY DATA SHEET

According to OSHA Hazcom Standard 29 CFR 1910.1200

XTeer Alpha (Gasoline Premium) (KOR)

Date of issue: 2020-12-02

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Version: 3.0

1. IDENTIFICATION

A. Product name

- XTeer Alpha (Gasoline Premium) (KOR)

B. Recommended use and restriction on use

- General use : Fuel Additives
- Restriction on use : Do not use for purposes other than recommended.

C. Manufacturer / Supplier / Distributor information

Manufacturer information

- Company name : HD HYUNDAI OILBANK
- Address : 17-10, Mabuk-ro 240beon-gil, Giheung-gu, Yongin-si, Gyeonggi-do, Republic of Korea
- Emergency telephone number : 1588-5189

Supplier/Distributor information

- Company name : HD HYUNDAI OILBANK
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2. HAZARD IDENTIFICATION

A. GHS Classification

- Flammable liquids : Category3
- Acute toxicity (inhalation: vapor) : Category4
- Skin corrosion/irritation : Category2
- Germ cell mutagenicity : Category1B
- Carcinogenicity : Category1B
- Specific target organ toxicity(Single exposure) : Category3(Narcotic effects)
- Aspiration hazard : Category1
- Chronic aquatic toxicity : Category2

B. GHS label elements

Hazard symbols



Signal words

- Danger

Hazard statements

- H226 Flammable liquid and vapour

- H304 May be fatal if swallowed and enters airways
- H315 Causes skin irritation
- H332 Harmful if inhaled
- H336 May cause drowsiness and dizziness.
- H340 May cause genetic defects
- H350 May cause cancer
- H411 Toxic to aquatic life with long lasting effects

○ Precautionary statements

1) Prevention

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233 Keep container tightly closed.
- P240 Ground and bond container and receiving equipment.
- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P242 Use non-sparking tools.
- P243 Take action to prevent static discharges.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 Wash hands thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

2) Response

- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P308+P313 If exposed or concerned: Get medical advice/attention.
- P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- P321 Specific treatment (if in eyes, wash with plenty of running water; if in contact with skin, wash with plenty of running water; if inhaled, move to fresh air; if ingested, seek medical advice on whether to induce vomiting).
- P331 Do NOT induce vomiting.
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P362+P364 Take off contaminated clothing and wash before reuse.
- P370+P378 In case of fire: Use Suitable extinguishing media for extinction(Refer Section MSDS 5).
- P391 Collect spillage.

3) Storage

- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P405 Store locked up.

4) Disposal

- P501 Dispose of contents/container in accordance with local/regional/national/international regulation

C. Other hazards which do not result in classification

- Not available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Trade names and Synonyms	CAS No.	Content(%)
Distillates (petroleum), hydrotreated light	Deodorized kerosene ; Low odor paraffinic solvent	64742-47-8	80~90
1-Propene, 2-methyl-, homopolymer, hydroformylation products, reaction products with ammonia	Not available	337367-30-3	~6
2-Ethylhexanol	2-Ethyl-1-hexanol ; Ethylhexanol ; 2-Ethylhexyl alcohol ; Octyl alcohol ; 2-Ethylhexan-1-ol	104-76-7	~5
Paraffins (petroleum), normal (C=5-20)	NORMAL PARAFFINS C5-20	64771-72-8	~3
Naphtha (petroleum), hydrotreated heavy	Naphtha	64742-48-9	~3
N,N-Dimethyl-1-hexadecanamine	N,N-Dimethylhexadecylamine	112-69-6	~0.1

4. FIRST AID MEASURES

A. Eye contact

- Do not rub your eyes.
- Immediately flush eyes with plenty of water for at least 15 minutes and call a doctor/physician.
- Get medical attention immediately.

B. Skin contact

- Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- Wash contaminated clothing thoroughly before re-using.
- Get medical attention immediately.
- Go to the hospital immediately if symptoms(flare, irritate) occur.
- Remove contaminated clothing, shoes and isolate.
- Wash thoroughly after handling.
- Wear gloves when washing the patient, and please avoid contact with contaminated clothing.

C. Inhalation contact

- Take specific treatment if needed.
- When exposed to large amounts of steam and mist, move to fresh air.
- Get medical attention immediately.
- If breathing is stopped or irregular, give artificial respiration and supply oxygen.

D. Ingestion contact

- Please be advised by doctor whether induction of vomit is demanded or not.
- Rinse your mouth with water immediately.
- Get medical attention immediately.
- If swallowed, large amounts of water to drink and do not induce vomiting.

E. Delayed and immediate effects and also chronic effects from short and long term exposure

- Not available

F. Notes to physician

- Notify medical personnel of contaminated situations and have them take appropriate protective measures.
- If exposed or concerned, get medical attention/advice.

5. FIREFIGHTING MEASURES

A. Suitable (Unsuitable) extinguishing media

- Avoid use of water jet for extinguishing
- Dry chemical, carbon dioxide, regular foam extinguishing agent, spray

B. Specific hazards arising from the chemical

- Causes skin irritation
- Flammable liquid and vapour

- Harmful if inhaled
- May be fatal if swallowed and enters airways
- May cause cancer

C. Special protective actions for firefighters

- Avoid inhalation of materials or combustion by-products.
- Cool containers with water until well after fire is out.
- Do not approach the tank surrounded by fire until it is extinguished.
- In case of conflagration, use automatic fire sprinkler. Major fire may require withdrawal, allowing the object itself to burn.
- Keep unauthorized personnel out.

6. ACCIDENTAL RELEASE MEASURES

A. Personal precautions, protective equipment and emergency procedures

- Do not touch spilled material. Stop leak if you can do it without risk.
- Handle the damaged containers or spilled material after wearing appropriate protective equipment
- Move container to safe area from the leak area.
- Must work against the wind, let the upwind people to evacuate.
- Remove all sources of ignition.

B. Environmental precautions

- If large amounts have been spilled, inform the relevant authorities.
- Prevent runoff and contact with waterways, drains or sewers.

C. Methods and materials for containment and cleaning up

- Appropriate container for disposal of spilled material collected.
- Dike for later disposal.
- Disposal of waste shall be in compliance with the Wastes Control Act
- Large spill : Stay upwind and keep out of low areas. Dike for later disposal.
- Notify the central and local government if the emission reach the standard threshold.

7. HANDLING AND STORAGE

A. Precautions for safe handling

- Avoid contact with incompatible materials.
- Avoid direct physical contact.
- Comply with all applicable laws and regulations for handling
- Dealing only with a well-ventilated place.
- Do not handle until all safety precautions have been read and understood.

B. Conditions for safe storage, including any incompatibilities

- Avoid direct sunlight.
- Check regularly for leaks.
- Do not apply any physical shock to container.
- Do not apply direct heat.
- Do not use damaged containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

A. Exposure limits

- ACGIH TLV
 - [2-Ethylhexanol] : TWA 5 ppm
- OSHA PEL
 - Not applicable

B. Engineering controls

- Business owner is recommended to maintain below recommended exposure limits for the working place with general exhaust of gas/vapour/mist/fume.

C. Individual protection measures, such as personal protective equipment

- Respiratory protection
 - Any air-purifying respirator with a full facepiece and an organic vapor canister.
 - Any chemical cartridge respirator with a full facepiece and organic vapor cartridge(s).
 - Any chemical cartridge respirator with organic vapor cartridge(s).
 - Consider warning properties before use.
 - For Unknown Concentration or Immediately Dangerous to Life or Health : Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply. Any self-contained breathing apparatus with a full facepiece.
 - Respiratory protection is ranked in order from minimum to maximum.
 - Under conditions of frequent use or heavy exposure, Respiratory protection may be needed.
- Eye protection
 - Provide an emergency eye wash station and quick drench shower in the immediate work area.
 - Wear primary eye protection such as splash resistant safety goggles with a secondary protection face shield.
- Hand protection
 - Wear appropriate chemical resistant glove.
- Skin protection
 - Wear appropriate chemical resistant protective clothing.
- Others
 - Not available

9. PHYSICAL AND CHEMICAL PROPERTIES

A. Appearance	
- Appearance	Liquid
- Color	Amber
B. Odor	Mild
C. Odor threshold	30 ppm
D. pH	Not available
E. Melting point/Freezing point	-70°C ~-50°C
F. Initial Boiling Point/Boiling Ranges	160°C ~ 205°C
G. Flash point	> 50°C
H. Evaporation rate	0.16 (ASTM D3539, n-BuAc=1)
I. Flammability(solid, gas)	Not available
J. Upper/Lower Flammability or explosive limits	0.7 ~ 6.5% (vol)
K. Vapour pressure	< 2.8 mmHg, 20°C
L. Solubility	insoluble
M. Vapour density	>1.0 (Air=1)
N. Specific gravity(Relative density)	0.767
O. Partition coefficient of n-octanol/water	Not available
P. Autoignition temperature	Not available
Q. Decomposition temperature	Not available
R. Viscosity	Not available
S. Molecular weight	Not available

10. STABILITY AND REACTIVITY

A. Chemical Stability

- This material is stable under recommended storage and handling conditions.

B. Possibility of hazardous reactions

- Cylinders exposed to fire may vent and release flammable gas.

C. Conditions to avoid

- Avoid : Accumulation of electrostatic charges, Heating, Flames and hot surfaces
- Avoid contact with incompatible materials and condition.
- Avoid contact with heat, sparks, flame or other ignition sources.

D. Incompatible materials

- Not available

E. Hazardous decomposition products

- May emit flammable vapour if involved in fire.

11. TOXICOLOGICAL INFORMATION

A. Information on the likely routes of exposure

- Respiratory tracts
 - May be fatal if swallowed and enters airways
- Oral
 - Not available
- Eye-Skin
 - Causes skin irritation

B. Delayed and immediate effects and also chronic effects from short and long term exposure

- Acute toxicity
 - * Oral
 - Product (ATEmix) : >5000mg/kg
 - [Distillates (petroleum), hydrotreated light] : LD50 > 5000 mg/kg Rat (OECD TG 420, GLP) (Read-across CAS No. 68333-23-3) (ECHA)
 - [2-Ethylhexanol] : LD50 2047 mg/kg Rat (OECD TG 401) (ECHA)
 - [Paraffins (petroleum), normal (C=5-20)] : LD50 > 5000 mg/kg Rat (IUCLID)
 - [Naphtha (petroleum), hydrotreated heavy] : LD50 > 15000 mg/kg Rat (IUCLID)
 - [N,N-Dimethyl-1-hexadecanamine] : LD50 > 3000 mg/kg Mouse
 - * Dermal
 - Product (ATEmix) : >5000mg/kg
 - [Distillates (petroleum), hydrotreated light] : LD50 > 2000 mg/kg Rabbit Not classified (OECD TG 402, GLP) (Read-across CAS No. 68333-23-3) (ECHA)
 - [2-Ethylhexanol] : LD50 > 3000 mg/kg Rat (OECD TG 402) (ECHA)
 - [Paraffins (petroleum), normal (C=5-20)] : LD50 > 3160 mg/kg Rabbit (IUCLID)
 - [Naphtha (petroleum), hydrotreated heavy] : LD50 > 3160 mg/kg Rabbit (IUCLID)
 - [N,N-Dimethyl-1-hexadecanamine] : LD50 > 3000 mg/kg Mouse
 - * Inhalation
 - Product (ATEmix) : 10.0mg/L 4hr < ATEmix <= 20.0mg/L 4hr
 - [Distillates (petroleum), hydrotreated light] : Vapor LC50 > 5.28 mg/L 4 hr No death Not classified (OECD TG 403, GLP) (Read-across CAS No. 8008-20-6) (ECHA)
 - [2-Ethylhexanol] : Aerosol LC50 > 0.89 ~ <= 5.3 mg/L Rat (OECD TG 403, GLP) (ECHA)
 - [Naphtha (petroleum), hydrotreated heavy] : Vapour LC50 > 5.61 mg/L 4 hr Rat No death Not classified (Read-across 86290-81-5) (OECD TG 403, GLP) (ECHA)
- Skin corrosion/irritation
 - Causes skin irritation
- Serious eye damage/irritation
 - Not available

- Respiratory sensitization
 - Not available
- Skin sensitization
 - Not available
- Carcinogenicity
 - * IARC
 - Not available
 - * OSHA
 - Not available
 - * ACGIH
 - [2-Ethylhexanol] : A3
 - * NTP
 - Not available
 - * EU CLP
 - [Naphtha (petroleum), hydrotreated heavy] : Carc. 1B (Note P)
- Germ cell mutagenicity
 - May cause genetic defects
- Reproductive toxicity
 - Not available
- STOT-single exposure
 - May cause drowsiness and dizziness.
- STOT-repeated exposure
 - Not available
- Aspiration hazard
 - May be fatal if swallowed and enters airways

12. ECOLOGICAL INFORMATION

A. Ecotoxicity

- Fish
 - [Distillates (petroleum), hydrotreated light] : LL50 2 ~ 5 mg/L 96 hr *Oncorhynchus mykiss* (OECD TG 203, GLP) (ECHA)
 - [2-Ethylhexanol] : LC50 17.1 mg/L 96 hr *Leuciscus idus melanotus* (EU Method C.1, GLP), LC10 0.278 mg/L 30d *Danio rerio* (OECD TG 210, GLP) (ECHA)
 - [Paraffins (petroleum), normal (C=5-20)] : LC50 5000 mg/l 96 hr *Pimephales promelas* (IUCLID)
 - [Naphtha (petroleum), hydrotreated heavy] : LC50 2200 mg/l 96 hr *Pimephales promelas* (IUCLID)
 - [N,N-Dimethyl-1-hexadecanamine] : LC50 0.026 mg/l 96 hr (Estimate)
- Crustaceans
 - [Distillates (petroleum), hydrotreated light] : EL50 1.4 mg/L 48 hr *Daphnia magna* (OECD TG 202, GLP) (ECHA)
 - [2-Ethylhexanol] : EC50 39 mg/L 48 hr *Daphnia magna* (EU Method C.2, GLP), EC10 1.53 mg/L 21d *Daphnia magna* (OECD TG 211, GLP) (ECHA)
 - [Naphtha (petroleum), hydrotreated heavy] : LC50 2.6 mg/l 96 hr (Species: *Chaetogammarus marinus*) (IUCLID)
 - [N,N-Dimethyl-1-hexadecanamine] : LC50 0.004 mg/l 48 hr (Estimate)
- Algae
 - [Distillates (petroleum), hydrotreated light] : EL50 1 ~ 3 mg/L 48 hr *Raphidocelis subcapitata* (OECD TG 201, GLP) (ECHA)
 - [2-Ethylhexanol] : EC50 21 mg/L, EC10 7.41 mg/L 72hr *Desmodesmus subspicatus* (EU Method C.3, GLP) (ECHA)
 - [Naphtha (petroleum), hydrotreated heavy] : EL50 3.1 mg/L 72 hr *Raphidocelis subcapitata* (Read-across) (OECD TG 201, GLP) (ECHA)
 - [N,N-Dimethyl-1-hexadecanamine] : EC50 0.046 mg/l 96 hr (Estimate)

B. Persistence and degradability

○ Persistence

- [2-Ethylhexanol] : log Pow 2.9 (25 °C, pH 7) (ECHA)
- [Paraffins (petroleum), normal (C=5-20)] : log Kow 5.01 (Estimate)
- [Naphtha (petroleum), hydrotreated heavy] : log Kow 7 (ECHA)
- [N,N-Dimethyl-1-hexadecanamine] : log Kow 7.41 log Kow >6.91 (20°C) (ECHA)

○ Degradability

- Not available

C. Bioaccumulative potential

○ Bioaccumulative potential

- [Distillates (petroleum), hydrotreated light] : BCF 130 ~ 159 (Jordanelia floridae(Fish, fresh water), 1mg/l) (IUCLID)
- [2-Ethylhexanol] : BCF 13 (HSDB)
- [Paraffins (petroleum), normal (C=5-20)] : BCF 143.8 (Estimate)

○ Biodegradation

- [2-Ethylhexanol] : Readily biodegradable (ECHA)
- [Paraffins (petroleum), normal (C=5-20)] : 95 (%) 18 day (Directive 84/449/EEC, C.3) (IUCLID)

D. Mobility in soil

- Not available

E. Other adverse effects

- Not available

13. DISPOSAL CONSIDERATIONS

A. Disposal methods

- It shall be treated by incineration
- Oil water separation technology shall be applied as pre-waste treatment if it is applicable
- Stabilization and minimization treatment by incineration or similar method can be applied, if more than two kinds of designated wastes are in mixture state and it is impractical to separate them
- Incinerate the oil by separating the oil and water
- The remainder of the water after separation will be processed in a water pollution prevention facilities.
- Do incineration or stabilization of the residue after disposal as the method of evaporation and concentration.
- Do incineration of the residue after disposal as the method of agglomeration and precipitation.
- Take care of incinerate or stabilization after treatment, purified by means of Separationdistillationextractiofiltrationpyrolysis

B. Special precautions for disposal

- Anyone with business license number who generates industrial wastes shall treat the waste by him/herself or by entrusting to the legal entities who treat the wastes, recycle the wastes of others or install and operate the waste treatment facilities according to the Wastes Control Act
- Dispose of waste in accordance with all applicable laws and regulations.

14. TRANSPORT INFORMATION

A. UN No. (IMDG CODE/IATA DGR)

- 1993

B. Proper shipping name

- FLAMMABLE LIQUIDS, N.O.S.

C. Hazard Class

- 3

D. IMDG CODE/IATA DGR Packing group

- III

E. Marine pollutant

- Applicable

F. Special precautions for user related to transport or transportation measures

- Local transport follows in accordance with Dangerous goods Safety Management Law.
- Package and transport follow in accordance with Department of Transportation (DOT) and other regulatory agency requirements.
- EmS FIRE SCHEDULE : F-E (Non-water-reactive flammable liquids)
- EmS SPILLAGE SCHEDULE : S-E (Flammable liquids, floating on water)

15. REGULATORY INFORMATION

A. National and/or international regulatory information

- POPs Management Law
 - Not applicable
- Information of EU Classification
 - * Classification
 - [Distillates (petroleum), hydrotreated light] : H304
 - [Naphtha (petroleum), hydrotreated heavy] : H304,H340,H350
- U.S. Federal regulations
 - * OSHA PROCESS SAFETY (29CFR1910.119)
 - Not applicable
 - * CERCLA Section 103 (40CFR302.4)
 - Not applicable
 - * EPCRA Section 302 (40CFR355.30)
 - Not applicable
 - * EPCRA Section 304 (40CFR355.40)
 - Not applicable
 - * EPCRA Section 313 (40CFR372.65)
 - Not applicable
- Rotterdam Convention listed ingredients
 - Not applicable
- Stockholm Convention listed ingredients
 - Not applicable
- Montreal Protocol listed ingredients
 - Not applicable

16. OTHER INFORMATION

A. Reference

- The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information contained herein.
- This Safety Data Sheet was compiled with data and information from the following sources: KOSHA, NITE, ESIS, NLM, SIDS, IPCS

B. Issue date

- 2020-12-02

C. Revision number and Last date revised

- 1 times, 2025-07-03

D. Other

- This SDS is prepared according to the Globally Harmonized System (GHS).