SAFETY DATA SHEET

According to OSHA Hazcom Standard 29 CFR 1910.1200

XTeer CVTF (ENG)

Date of issue: 2019-10-23 **Revision date: 2023-10-18** **Version: 5.0**

1. IDENTIFICATION

A. Product name

- XTeer CVTF (ENG)

B. Recommended use and restriction on use

- General use : Continuously Transmission fluid
- 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 : 02-500-4500

○ **Supplier/Distributer 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 : 02-500-4500

2. HAZARD IDENTIFICATION

A. GHS Classification

- Not applicable

B. GHS label elements

○ **Hazard symbols**

Not applicable

○ **Signal words**

- Not applicable

○ **Hazard statements**

- Not applicable

○ **Precautionary statements**

1) Prevention

- Not applicable

2) Response

- Not applicable

3) Storage

- Not applicable

4) Disposal

- Not applicable

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 heavy paraffinic	Emulsifiable oil	64742-54-7	93 ~ 98
1-Propene polymer with ethene	ETHYLENE-PROPYLENE COPOLYMER	9010-79-1	1 ~ 2

ar-Nonyl-N-(nonylphenyl)benzenamine	DINONYL DIPHENYLAMINE	36878-20-3	~ 1
1-[[4-(Phenylazo)phenyl]azo]-2-naphthalenol ar-heptyl ar',ar"-Me derivs.	2-Naphthalenol, 1-[[4-(phenylazo)phenyl]azo]-, ar-heptyl ar',ar"-Me derivs. Manufacturer	92257-31-3	~ 1
N,N-Dimethyl-1-octadecanamine	N-n-octadecyl dimethyl amine	124-28-7	~ 0.5
Xylene	Xylol ; Methyltoluene	1330-20-7	~ 0.1
2-(8-Heptadecenyl)-4,5-dihydro-1H-imidazole-1-ethanol	1H-Imidazole-1-ethanol,2-(8-heptadecen-1-yl)-4,5-dihydro-	95-38-5	~ 0.1
Ethylbenzene	Benzene, ethyl- ; Ethyl benzene ; Ethylbenzol ; Phenylethane ;	100-41-4	~ 0.1
Distillates (petroleum), hydrotreated light naphthenic	Mineral oil, petroleum distillates, hydrotreated (severe) light naphthenic ; Distillates (petroleum), hydrotreated light naphthenic ; Distillates, petroleum, hydrotreated light naphthenic ; Distillates (petroleum),hydrotreated light naphthenic ; Distill. (petroleum), hydrotreated light napthenic ; Distillates (petroleum), hydrotreated, light naphthenic ; Hydraulic petroleum oil ; Hydrotreated light naphthenic (petroleum) ; Hydrotreated light naphthenic distillate ;	64742-53-6	~ 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.

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.

C. Inhalation contact

- Take specific treatment if needed.
- When exposed to large amounts of steam and mist, move to fresh air.

D. Ingestion contact

- Please be advised by doctor whether induction of vomit is demanded or not.
- Rinse your mouth with water immediately.

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.

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

- Not available

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**

- [Distillates (petroleum), hydrotreated heavy paraffinic] : TWA 5 mg/m3, Inhalable particulate matter(Mineral oil, Pure, highly and severely refined)
- [Xylene] : TWA 20 ppm
- [Ethylbenzene] : TWA, 20 ppm (87 mg/m3)
- [Distillates (petroleum), hydrotreated light naphthenic] : TWA 5 mg/m3, Inhalable particulate matter(Mineral oil, Pure, highly and severely refined)

○ **OSHA PEL**

- [Xylene] : 100 ppm, 435 mg/m3
- [Ethylbenzene] : 100 ppm, 435 mg/m3

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 vaporcartridge(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	Red
B. Odor	Mild
C. Odor threshold	Not available
D. pH	Not available
E. Melting point/Freezing point	Not available
F. Initial Boiling Point/Boiling Ranges	Not available
G. Flash point	> 220℃
H. Evaporation rate	Not available
I. Flammability(solid, gas)	Not available
J. Upper/Lower Flammability or explosive limits	Not available
K. Vapour pressure	Not available
L. Solubility	Not available
M. Vapour density	Not available
N. Specific gravity(Relative density)	0.8491
O. Partition coefficient of n-octanol/water	Not available
P. Autoignition temperature	Not available
Q. Decomposition temperature	Not available
R. Viscosity	35.02 cSt at 40℃, 7.334 cSt at 100℃
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

- Hazardous Polymerization will not occur.

C. Conditions to avoid

- Avoid : Accumulation of electrostatic charges, Heating, Flames and hot surfaces
- Avoid contact with incompatible materials and condition.

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**

- Not available

○ **Oral**

- Not available

○ **Eye·Skin**

- Not available

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 heavy paraffinic] : LD50 > 5000 mg/kg Rat (ECHA)
- [1-[[4-(Phenylazo)phenyl]azo]-2-naphthalenol ar-heptyl ar',ar''-Me derivs.] : LD50 > 5000 mg/kg, Rat (OECD Guideline 401) (ECHA)
- [N,N-Dimethyl-1-octadecanamine] : LD50 2116 ㎎/㎏ b.w. Rat (OECD TG 401, GLP) (ECHA)
- [Xylene] : LD50 3523 mg/kg Rat (EU Method B.1) (ECHA)
- [Ethylbenzene] : LD50 3500 mg/kg Rat (ECHA)
- [Distillates (petroleum), hydrotreated light naphthenic] : LD50 > 5000 ㎎/㎏ Rat (GLP, ECHA)

*** Dermal**

- Product (ATEmix) : >5000mg/kg
- [Distillates (petroleum), hydrotreated heavy paraffinic] : LD50 >5000 mg/kg Rabbit (ECHA)
- [Xylene] : LD50 > 4200 mg/kg, LD50 12,126 mg/kg Rabbit (NIER)
- [Ethylbenzene] : LD50 15432 mg/kg (17.8 mL/kg) Rabbit (ECHA)
- [Distillates (petroleum), hydrotreated light naphthenic] : LD50 > 5000 ㎎/㎏ Rabbit (GLP, ECHA)

*** Inhalation**

- Product (ATEmix) : Not available
- [Distillates (petroleum), hydrotreated heavy paraffinic] : Aerosol LC50 > 5.53 mg/L 4 hr, Rat, Read-across : CAS No. 64741-88-4 (ECHA)
- [Xylene] : Vapor LC50 10~20 mg/L 4 hr (NIER)
- [Ethylbenzene] : Vapor LC50 10~20 mg/L 4 hr (EU Harmonized Cat. 4) (ECHA)
- [Distillates (petroleum), hydrotreated light naphthenic] : Aerosol LC50 2.18 ㎎/ℓ 4 hr (OECD Guideline 403)

○ **Skin corrosion/irritation**

- Not available

○ **Serious eye damage/irritation**

- Not available

○ **Respiratory sensitization**

- Not available

○ **Skin sensitization**

- Not available

○ **Carcinogenicity**

*** IARC**

- [Xylene] : Group 3
- [Ethylbenzene] : Group 2B

*** OSHA**

- Not available

*** ACGIH**

- [Xylene] : A4
- [Ethylbenzene] : A3

*** NTP**

- Not available

*** EU CLP**

- [Distillates (petroleum), hydrotreated heavy paraffinic] : Carc. 1B (Note L)
- [Distillates (petroleum), hydrotreated light naphthenic] : Carc. 1B (Note L)

○ **Germ cell mutagenicity**

- Not available

○ **Reproductive toxicity**

- Not available

○ **STOT-single exposure**

- Not available

○ **STOT-repeated exposure**

- Not available

○ **Aspiration hazard**

- Not available

12. ECOLOGICAL INFORMATION

A. Ecotoxicity

○ **Fish**

- [Distillates (petroleum), hydrotreated heavy paraffinic] : LL50 > 100 mg/L, 96hr, Pimephales promelas (ECHA)
- [N,N-Dimethyl-1-octadecanamine] : LC50 0.18 ㎎/ℓ 96 hr Oncorhynchus mykiss (ECHA)
- [Xylene] : LC50 7.6 mg/L 96 hr Oncorhynchus mykiss (OECD TG 203), NOEC 0.714 mg/L 35 d Danio rerio (OECD TG 210, GLP) (ECHA)
- [Ethylbenzene] : LC50 5.1 mg/L 96 hr Menidia menidia (ECHA)
- [Distillates (petroleum), hydrotreated light naphthenic] : LC50 > 5000 ㎎/ℓ 96 hr Oncorhynchus mykiss (IUCLID)

○ **Crustaceans**

- [Distillates (petroleum), hydrotreated heavy paraffinic] : EL50 > 10000 mg/L, 48hr, Daphnia magna (ECHA)
- [N,N-Dimethyl-1-octadecanamine] : LC50 0.926 ㎎/ℓ 48 hr Daphnia magna (Read-across Cas No. 1120-24-7) (OECD TG 202, GLP) (ECHA)
- [Xylene] : NOEC 1.17 mg/L 7 d Ceriodaphnia dubia (ECHA)
- [Ethylbenzene] : EC50 1.8~2.4 mg/L 48 hr Daphnia magna, NOEC 0.96 mg/L 7 d Ceriodaphnia dubia (ECHA)
- [Distillates (petroleum), hydrotreated light naphthenic] : EC50 > 1000 ㎎/ℓ 48 hr Daphnia magna (IUCLID)

○ **Algae**

- [Distillates (petroleum), hydrotreated heavy paraffinic] : EC25 1152.9 mg/L, 96hr, Pseudokirchneriella subcapitata, NOEL >= 100 mg/L, 72hr (ECHA)
- [N,N-Dimethyl-1-octadecanamine] : EC50 0.0141 mg/L 72hr Desmodesmus subspicatus (OECD 201, GLP) (ECHA)
- [Xylene] : EC50 4.7 mg/L 72 hr Raphidocelis subcapitata (OECD TG 201) (ECHA)
- [Ethylbenzene] : EC50 3.6 mg/L 96 hr, NOEC 3.4 mg/L 96 hr Raphidocelis subcapitata (ECHA)
- [Distillates (petroleum), hydrotreated light naphthenic] : EC50 > 1000 ㎎/ℓ 96 hr Scenedesmus subspicatus (IUCLID)

B. Persistence and degradability

○ **Persistence**

- [Distillates (petroleum), hydrotreated heavy paraffinic] : log Pow = 1.99 ~ 18.02 (20℃) (ECHA)
- [Xylene] : log Pow 3.12 (ECHA)
- [2-(8-Heptadecenyl)-4,5-dihydro-1H-imidazole-1-ethanol] : log Kow 7.510 (NLM-ChemIDplus)
- [Ethylbenzene] : log Pow 3.6 (20 ℃) (ECHA)
- [Distillates (petroleum), hydrotreated light naphthenic] : log Kow = 3.9 ~ 6 (Estimate)

○ **Degradability**

- Not available

C. Bioaccumulative potential

○ **Bioaccumulative potential**

- [Ethylbenzene] : BCF 1 (ECHA)

○ **Biodegradation**

- [N,N-Dimethyl-1-octadecanamine] : Readily biodegradable 64% degradation (O2 consumption) (OECD TG 301D, GLP) (ECHA)
- [Xylene] : 94 % 28 d, Readily biodegradable (OECD TG 301 F, GLP) (ECHA)
- [Ethylbenzene] : 70~ 80 % 28 d, Readily biodegradable (ECHA)
- [Distillates (petroleum), hydrotreated light naphthenic] : Biodegradability = 6 (%) 28 day (Aerobic, Domestic wastewater, does not decompose easily)

D. Mobility in soil

- [N,N-Dimethyl-1-octadecanamine] : Log Koc 3.362 (20℃, 30.1% Org. carbon) (OECD TG 106, GLP) (ECHA)
- [Xylene] : log Koc ca. 2.73 dimensionless (OECD TG 121) (ECHA)

E. Other adverse effects

- [Distillates (petroleum), hydrotreated light naphthenic] : fish: NOEC(Fathead Minnow) >5000 mg/L/7days (IUCLID)

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

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)

- Not applicable

B. Proper shipping name

- Not applicable

C. Hazard Class

- Not applicable

D. IMDG CODE/IATA DGR Packing group

- Not applicable

E. Marine pollutant

- Not applicable

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

- Air transport(IATA): Not subject to IATA regulations.
- 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 : Not available
- EmS SPILLAGE SCHEDULE : Not available

15. REGULATORY INFORMATION

A. National and/or international regulatory information

○ **POPs Management Law**

- [Distillates (petroleum), hydrotreated heavy paraffinic] : Not applicable
- [1-Propene polymer with ethene] : Not applicable
- [ar-Nonyl-N-(nonylphenyl)benzenamine] : Not applicable
- [1-[[4-(Phenylazo)phenyl]azo]-2-naphthalenol ar-heptyl ar',ar''-Me derivs.] : Not applicable
- [N,N-Dimethyl-1-octadecanamine] : Not applicable
- [Xylene] : Not applicable
- [2-(8-Heptadecenyl)-4,5-dihydro-1H-imidazole-1-ethanol] : Not applicable
- [Ethylbenzene] : Not applicable
- [Distillates (petroleum), hydrotreated light naphthenic] : Not applicable

○ **Information of EU Classification**

*** Classification**

- [Distillates (petroleum), hydrotreated heavy paraffinic] : H350
- [Xylene] : H226,H312,H315,H332
- [Ethylbenzene] : H225,H304,H332,H373
- [Distillates (petroleum), hydrotreated light naphthenic] : H350

○ **U.S. Federal regulations**

*** OSHA PROCESS SAFETY (29CFR1910.119)**

- Not applicable

*** CERCLA Section 103 (40CFR302.4)**

- [Xylene] : 45.3599 kg 100 lb
- [Ethylbenzene] : 453.599 kg 1000 lb

*** EPCRA Section 302 (40CFR355.30)**

- Not applicable

*** EPCRA Section 304 (40CFR355.40)**

- Not applicable

*** EPCRA Section 313 (40CFR372.65)**

- [Xylene] : Applicable
- [Ethylbenzene] : 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

- 2019-10-23

C. Revision number and Last date revised

- 5 times, 2023-10-18

D. Other

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