SDS(Safety Data Sheet)

Product	Kixx PureWhite 6F		
MSDS Number	List No.	Issuing date	Last revised date
-	BO1076	2024-07-15	2024-07-15

1. IDENTIFICATION

1) Product name

Kixx PureWhite 6F

2) Recommended use of the chemical and restriction on use

- Recommended use Lubricants, greases, release products
- Restrictions on use Do not use for any other purpose.

3) Details of the supplier of the safety data sheet

○ **Manufacturer**

- Company name GS Caltex Corporation
- Address GS Tower, 508, Nonhyeon-ro, Gangnam-gu, Seoul, Korea
- Emergency telephone number 1544-5151

2. HAZARDS IDENTIFICATION

1) Classification of the product

- Not applicable

2) Label elements

○ **Hazard pictograms**

- Not applicable

○ **Signal word**

- Not applicable

○ **Hazard statements**

- Not applicable

○ **Precautionary statements**

1) Prevention

- Not applicable

2) Response

- Not applicable

3) Storage

- Not applicable

4) Disposal

- Not applicable

3) Other hazards

○ **Product NFPA Level**

(※ 0-Lack, 1-Low, 2-Moderate, 3-High, 4-Very High)

Product name	Health	Flammable	Reaction
Kixx PureWhite 6F	0	1	0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	Trade names and Synonyms	CAS No.	EC No.	Contain Ratio(%)
White mineral oil (petroleum)	Slab oil ;Mineral oil	8042-47-5	232-455-8	100

4. FIRST AID MEASURES

1) Eye contact

- In case of contact with material, immediately flush eyes with running water for at least 15 minutes.
- If eye irritation persists: Get medical advice/attention.

2) Skin contact

- In case of contact with material, immediately flush skin with running water for at least 15 minutes.
- Remove and isolate contaminated clothing and shoes.
- Launder contaminated clothing and shoes before re-use.
- If skin irritation occurs: Get medical advice/attention.

3) Inhalation

- Move victim to fresh air.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

4) Ingestion

- If unconscious but breathing, never give anything by mouth
- If swallowed do not induce vomiting, seek medical advice immediat.
- Get immediate medical advice/attention.
- Rinse mouth.

5) Indication of any immediate medical attention and special treatment needed

- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

5. FIRE FIGHTING MEASURES

1) Suitable (and unsuitable) extinguishing media

- Small fire: Dry sand, dry chemical, alcohol-resistant foam, water spray, regular foam, CO2 (Suitable extinguishing media)
- Large fire: Water spray/fog, regular foam (Suitable extinguishing media)
- High-pressure water (Unsuitable extinguishing media)

2) Special hazards arising

- May be ignited by heat, sparks or flames.

from the substance or mixture	- Fire may produce irritating and/or toxic gases. - May cause toxic effects if inhaled.
3) Special protective equipment and precautions for firefighters	- Substance may be transported hot. - Runoff may cause pollution. - Contact may cause burns to skin and eyes. - Dike fire-control water for later disposal; do not scatter the material. - Move containers from fire area if you can do it without risk. - Fire involving Tanks: Cool containers with flooding quantities of water until well after fire is out. - Fire involving Tanks: Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. - Fire involving Tanks: ALWAYS stay away from tanks engulfed in fire.

6. ACCIDENTAL RELEASE MEASURES

1) Health considerations and protective equipment	- Do not touch or walk through spilled material. - ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). - Ventilate the contaminated area. - Stop leak if you can do it without risk. - Prevent dust cloud. - Please note that materials and conditions to be avoided.
2) Environmental precautions	- Prevent entry into waterways, sewers, basements or confined areas.
3) Methods and material for containment and cleaning up	- Small Spill: Flush area with flooding quantities of water. - Large Spill: Dike far ahead of liquid spill for later disposal. - With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. - Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. - Small Spill: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

7. HANDLING AND STORAGE

1) Precautions for safe handling	- Wash ... thoroughly after handling. - Please note that materials and conditions to be avoided. - Handling refer to engineering control/personal protection section. - Cuation: High temperature
2) Conditions for safe storage (including any incompatibilities)	- Store in a dry place. Store in a closed container. - Please note that materials and conditions to be avoided. - Store in a closed container.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

1) Control parameters

Chemical name	Exposure limits	ACGIH TLV	OSHA PEL	Biological limit values(BLV)
White mineral oil (petroleum)	Not available	TWA 5 mg/m3, Inhalable particulate matter(Mineral oil, Pure, highly and severely refined)	Not available	Not available

2) Appropriate engineering controls

- Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
- Adjust the ventilation rate to suit the condition.

3) Personal protection equipment

○ **Respiratory protection**
- Wear a adequate respiratory protection equipment with certificate by considering physicochemical properties of exposured particulate material.
- In case exposured to particulate material, the respiratory protective equipments as follow are recommended. - facepiece filtering respirator or air-putifying respirator, high-efficiency particulate air(HEPA) filter media or resporator equipped with power
- In lack of oxigan(<19.6%), wear the supplied-air respiratior or self-contained breathing apparatus.
- Consider the warning characteristics beforehand.

○ **Eye protection**
- Wear breathable safety goggles to protect from material causing eye irritation or other disorder.
- An eye wash unit and safety shower station should be available nearby work place.
- In case of direct exposure or potential exposure to the substance, wear safety glasses for chemicals approved in the country.

○ **Hand protection**
- Wear appropriate protective gloves by considering physical and chemical properties of chemicals.
- In case of direct exposure or potential exposure to the substance, wear safety gloves for chemicals approved in the country.

○ **Body protection**
- Wear appropriate protective clothing by considering physical and chemical properties of chemicals.
- In case of direct exposure or potential exposure to the substance, wear protective clothing for chemicals approved in the country.

9. PHYSICAL AND CHEMICAL PROPERTIES

Item	Input Value

Apperance	Liquid
Color	No Data
Smell	No Data
Smell Threshold	No Data
pH (Numerical value)	No Data
Melting/Freezing Point	No Data
Boilling Point	No Data
Flash Point	200 ℃
Evaporating Rate	0.01
Flammability(Solid, Gas)	No Data
Explosibility Range	UEL:7%, LEL:0.9%
Steam Pressure	5 mmHg
Solubility	No Data
Vapor Density	5
Specific Gravity	0.85
Distribution Coefficient	No Data
SelfIgnition Temperature	>400℃
Pyrolysis Temperature	No Data
Viscosity	36 mm2/s (at 40℃)
Molecular Weight	No Data

10. STABILITY AND REACTIVITY

1) Chemical Stability and hazardous reactivity
- Stable under normal temperatures and pressures.
- Containers may explode when heated.
- Some may burn but none ignite readily.

2) Conditions to avoid
- Ignition source(heat, spark, flame)

3) Incompatible materials
- Combustibles
- Irritating and/or toxic gas

4) Hazardous decomposition products
- Not available

11. TOXICOLOGICAL INFORMATION

1) Information on the likely routes of exposures

○ **Inhalation**

- No inhalation effects through respiratory system.

○ **Skin contact**

- No effect on skin contact.

○ **Eye contact**

- No effect on eye contact.

○ **Ingestion**

- No ingestion effect through mouth.

2) Health hazard information

○ **Acute toxicity**

*** Oral - Not classified (ATEmix > 2000 mg/kg)**

- White mineral oil (petroleum) : rat(male/female); LD50 > 5000 ㎎/kg bw, no deaths (OECD TG 401, GLP) (read across: F-53-01, ARCOprime 400) (ECHA)

*** Dermal - Not classified (ATEmix > 2000 mg/kg)**

- White mineral oil (petroleum) : rabbit(male/female); LD50 > 2000 ㎎/kg bw, no deaths (OECD TG 402, GLP) (read across: F-53-01, ARCOprime 400) (ECHA)

*** Inhalation(Gas) - Not applicable**

- White mineral oil (petroleum) : Not applicable

*** Inhalation(Vapour) - Not classified (ATEmix > 20 mg/L)**

- White mineral oil (petroleum) : Not available

*** Inhalation(Dust, mist) - Not classified (ATEmix > 5 mg/L)**

- White mineral oil (petroleum) : rat(male/female); inhalation: aerosol; LC50 > 5 mg/L air 4h, no deaths (OECD TG 403, GLP) (read across: F-52-01) (ECHA)

○ **Skin corrosion/Irritation : Not classified**

- White mineral oil (petroleum) : rabbit; not irritating (mean erythema and edema scores = 0) (OECD TG 404, GLP) (read across: white mineral oil [F-52-01; ARCOprime 70]) (ECHA)

○ **Serious eye damage/irritation : Not classified**

- White mineral oil (petroleum) : rabbit; not irritating (The mean unwashed cornea and iris scores (24-72 hours) were both 0.0. The mean unwashed conjunctivae score (24-72 hours) was 0.22.) (OECD TG 405, GLP) (read across: white mineral oil [F-52-01; ARCOprime 70]) (ECHA)

○ **Respiratory sensitization : Not classified**

- White mineral oil (petroleum) : Not available

○ **Skin sensitization : Not classified**

- White mineral oil (petroleum) : guinea pig; not sensitising (OECD TG 406, GLP) (read across: white mineral oil [F-52-01; ARCOprime 70]) (ECHA)

○ **Carcinogenicity : Not classified**

- White mineral oil (petroleum) : IARC, EU CLP 1272/2008, OSHA, ACGIH, US EPA IRIS, NTP : not listed

○ **Germ cell mutagenicity : Not classified**

- White mineral oil (petroleum) : In vitro bacterial reverse mutation assay; negative (OECD TG 471) (read across: MRD-01-879 (Primol 542)) (ECHA)
  In Vitro Mammalian Cell Gene Mutation Test: negative (OECD TG 476) (read

across: Primol 185 (GOO2)) (ECHA)

In vivo Mammalian Erythrocyte Micronucleus Test: negative (OECD TG 474) (read across) (ECHA)

○ **Reproductive toxicity : Not classified**

- White mineral oil (petroleum) : rat(male/female); dermal; 0, 125, 500, 2000 mg/kg/day; one-generation reproductive toxicity; no adverse effects on reproductive parameters or development of pups in a one-generation study. NOAEL>= 2000 mg/kg bw/day (OECD TG 415) (read across: Stock 461 (80" White Oil)) (ECHA)

  rat; oral; 5000 mg/kg; Prenatal Developmental Toxicity Study; No adverse effects were noted on reproductive parameters or on the in utero suvival or development of the offspring. The developmental NOAELs are greater than or equal to the highest dose tested via gavage. (OECD TG 414) (read across:Stock 461; 80" White oil) (ECHA)

○ **Specific target organ toxicity (single exposure) : Not classified**

- White mineral oil (petroleum) : oral; rat(male/female); No gross lesions were observed at necropsy. LD50 > 5000 ㎎/㎏ bw, no deaths (OECD TG 401, GLP) (read across: F-53-01, ARCOprime 400) (ECHA)

  dermal; rabbit(male/female); No gross lesions were observed upon necropsy. LD50 > 2000 ㎎/㎏ bw, no deaths (OECD TG 402, GLP) (read across: F-53-01, ARCOprime 400) (ECHA)

  inhalation: aerosol; rat(male/female); Clinical signs included labored breathing, rales, partial closing of the eyes, nasal discharge, recumbency, and incoordination. All animals appeared normal at day 5 after exposure and throughout the remainder of the study period. LC50 > 5 mg/L air 4h, no deaths (OECD TG 403, GLP) (read across: F-52-01) (ECHA)

○ **Specific target organ toxicity (repeated exposure) : Not classified**

- White mineral oil (petroleum) : oral; rat(male/female); 0, 60, 120, 240, or 1200 mg/kg/day; The NOAEL was greater than or equal to 1200 mg/kg bw/day. There was no carcinogenic potential or chronic toxicity of highly refined base oil administered via the diet for twenty-four months. (OECD TG 453, GLP) (read across: P70H and P100H) (ECHA)

  dermal; rat(male/female); 0, 125, 500, or 2000 mg/kg/day; 13 weeks;The NOAEL for local effects is < 125 mg/kg based on skin irritation, while the NOAEL for systemic effects is greater than or equal to 2000 mg/kg, in the absence of significant toxicological findings of concern. (OECD TG 411, GLP) (read across: Stock 461 (80" white oil)) (ECHA)

  inhalation; rat(male/female); 0, 50, 210 and 1000 mg/m³; 28 days; The NOEL was considered to be 50 mg/m3 and LOEL was 210 mg/m3 due to the increase in lung weight. (OECD TG 412) (ECHA)

○ **Aspiration hazard : Not classified**

- White mineral oil (petroleum) : Viscosity : 45 cSt at 40°C. (experimental value by GS caltex)

12. ECOLOGICAL INFORMATION

1) Ecotoxicity

- Acute toxicity : Not classfied (ATEmix>1mg/L)
- Chronic toxicity : Not classfied

○ **Acute (short-term) aquatic hazard:**

Fish

- White mineral oil (petroleum) : 96h-LL50(Oncorhynchus mykiss) > 100 mg/L (OECD TG 203) (ECHA)

Invertebrates

- White mineral oil (petroleum) : 48h-LL50(Daphnia magna) > 100 mg/L (OECD TG 202) (ECHA)

Aquatic algae

- White mineral oil (petroleum) : Not available

○ **Chronic (Long-term) aquatic hazard:**

Fish

- White mineral oil (petroleum) : Not available

Invertebrates

- White mineral oil (petroleum) : 21d-NOEL(Daphnia magna) = 10 mg/L (OECD TG 211, GLP) (ECHA)

Aquatic algae

- White mineral oil (petroleum) : 72h-NOErL(Pseudokirchneriella subcapitata)>100 mg/L(OECD TG 201) (ECHA)

2) Persistence and degradability

○ **Persistence**

- White mineral oil (petroleum) : log Kow = 5.18 (estimated) (EPISUITE)

○ **Degradability**

- White mineral oil (petroleum) : Not available

3) Bioaccumulative potential

○ **Bioaccumulation**

- White mineral oil (petroleum) : BCF=1216 (estimated) (EPISUITE)

○ **Biodegradation**

- White mineral oil (petroleum) : 31% degradation after 28 days; not readily biodegradable (OECD TG 301F, GLP) (read across: MRD-94-981 Solvent Neutral 600 Base Oil-) (ECHA)

4) Mobility in soil

- White mineral oil (petroleum) : Koc=31280 (estimated) (EPISUITE)

5) Hazard to the ozone layer

- White mineral oil (petroleum) : Not applicable

6) Other adverse effects

- White mineral oil (petroleum) : Not classified

13. DISPOSAL CONSIDERATIONS

1) Disposal methods

- Waste must be disposed of in accordance with federal, state and local environmental control regulation.

2) Special precaution for disposal

- Consider the required attentions in accordance with waste treatment management regulation.

14. TRANSPORT INFORMATION

1) UN No.

- Not applicable

2) Proper shipping name

- Not applicable

3) Transport hazard class(es)

- Not applicable

4) Packing group

- Not applicable

5) Marine pollutant

- Not applicable

6) Special safety response for transportation or transportation measure

- Types of Emergency Measures in Case of Fire : Not applicable
- Types of Emergency Measures in Leakage : Not applicable
- Transport regulations according to ADR/RID, AND, IMDG and ICAO/IATA : Not applicable

15. REGULATORY INFORMATION

EINECS(or ELINCS)

- White mineral oil (petroleum) : European EINECS phase-in substance

EU CLP (CLASSIFICATION) - PRODUCT : Not applicable

- White mineral oil (petroleum) : Not applicable

Substances restricted under REACH

- White mineral oil (petroleum) : Not applicable

Substances subject to authorization under REACH

REACH SVHC List

Korea

○ **Occupational Safety and Health Act**

- White mineral oil (petroleum) : Not applicable

○ **K-REACH**

- White mineral oil (petroleum) : Not applicable

○ **Chemical Control Act in Korea**

- White mineral oil (petroleum) : Not applicable

○ **Safety Control of Dangerous Substances Act**

- White mineral oil (petroleum) : Not applicable

U.S.A

○ **US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

- White mineral oil (petroleum) : Not applicable

○ **CERCLA Designation of hazardous substances (40 CFR 302.4)**

- White mineral oil (petroleum) : Not applicable

○ **CERCLA Section 302 regulation**

- White mineral oil (petroleum) : Not applicable

○ **CERCLA Section 304 regulation**

- White mineral oil (petroleum) : Not applicable

○ **CERCLA Section 313 regulation**

- White mineral oil (petroleum) : Not applicable

Interntional Convention on Environment

○ **Rotterdam Convention list**

- White mineral oil (petroleum) : Not applicable

○ **Stockholm Convention list**

- White mineral oil (petroleum) : Not applicable

○ **Montreal Protocol list**

- White mineral oil (petroleum) : Not applicable

National Inventory

○ **Korea**

- White mineral oil (petroleum) : Not applicable

○ **U.S.A**

- White mineral oil (petroleum) : US TSCA phase-in substance

○ **China**

- White mineral oil (petroleum) : China phase-in substance

○ **Japan**

- White mineral oil (petroleum) : Not applicable

16. OTHER INFORMATION

1) Reference

- Sources of information used in preparing this SDS included one or more of the following: Internal technical data, data from OECD eChemPortal, ECHA, NITE, TOXNET, IPCS and KOSHA search results.

2) Issue Date

- 2024-07-15

3) Revision number and Last date revised

○ **Date of last revision**

- 2024-07-15

○ **Last Revision History**

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4) Other

- The information contained in the Safety Data Sheet is at the date of its issuance to the best of our knowledge correct according to the data available to us. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.