

Material Safety Data Sheet (MSDS)

1. Chemical Product & Company Identification

A. Product Name : Wixelent EP GREASE

B. Intended Use

: EP Grease

C. Manufacturer & Supplier information

- Manufacture : NTG KOREA Co., Ltd (☎ +82-55-587-8211~4 Fax. +82-55-587-8215)
- Address : #80-1, Geynae-ri, Chilseo-myeon, Haman-gun, Gyeongnam, Korea Rep.
- Supplier : NTG KOREA Co., Ltd (☎ +82-55-587-8211~4 Fax. +82-55-587-8215)
- Address : #80-1, Geynae-ri, Chilseo-myeon, Haman-gun, Gyeongnam, Korea Rep.

2. Hazard Identification

A. Hazard Identification

1) **Physicochemical** : Not Classified

2) **Health hazards** :

- Corrosive to metals: Category 1
- Acute toxicity (oral) : Category 3
- Skin Corrosion/Irritation : Category 1
- Respiratory Sensitization : Category 1
- Serious eye damage/eye irritation : Category 1

3) **Environmental hazards** : Not Classified

B. Precautionary Statement(s) & Warning Label

1) Symbols



2) Signal Word : Danger

3) Hazard Statement(s)

- H290 - May be corrosive to metals.
- H301 - Toxic if swallowed.
- H304 - May be fatal if swallowed and enters airways.
- H315 - Causes skin irritation
- H318 - Causes serious eye damage.

4) Precautionary Statement(s)

■ Precautionary

- P234: Keep only in original container.
- P260 : Do not breathe dust/fume/gas/mist/vapours/spray.
- P264 : Wash ... thoroughly after handling.
- P270 : Do not eat, drink or smoke when using this product.
- P273 : Avoid release to the environment.
- P280 : Wear protective gloves/protective clothing/eye protection/face protection.

■ Response

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing.
Rinse skin with water/shower.

P305+P351+P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 : Immediately call a POISON CENTER or doctor/physician.

P321 : Specific treatment (see ... on this label).

P330 : Rinse mouth.

P331 : Do NOT induce vomiting.

P363 : Wash contaminated clothing before reuse.

P390 : Absorb spillage to prevent material damage.

■ Storage

P405 : Store locked up.

■ Disposal

P501 : Dispose of contents/container to ...

C. Other hazards.

Chemicals Name	NFPA Ratings		
	Health	Fire	Reactivity
1. DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	-	-	-
2. SOLVENT-REFINED HEAVY NAPHTHENIC	-	-	-
3. 12-HYDROXY TREARATE	1	1	0
4. LITHIUM HYDROXIDE	3	0	1
5. TRADE SECRET(S1)	1	1	0
6. TRADE SECRET(S2)	-	-	-
7. TRADE SECRET(S3)	2	1	0

3. Composition / Information on ingredients

Chemical Name	Other name	CAS No.	%
1. DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	Hydrotreated (mild) heavy paraffinic distillate	64742-54-7	70 ~ 78 %
2.SOLVENT-REFINED HEAVY NAPHTHENIC	Naphthenic Base Lube Stock	64741-96-4	8 ~ 13 %
3. 12-HYDROXY STARIC ACID	CERIT FAC	106-14-9	5 ~ 10 %

4.LITHIUM HYDROXIDE	Lithium hydroxide	1310-66-3	0.5 ~ 1.5%
5. TRADE SECRET(S1)	-	-	1.5 ~ 3.0%
6. TRADE SECRET(S2)	-	-	0.1 ~ 0.5 %
7. TRADE SECRET(S3)	-	-	0.1 ~ 0.5 %

4. First aid Measures

A. Eye Contact :

- Immediately flush eyes with plenty of water.
- Get medical attention.

B. Skin contact :

- Wash skin thoroughly with soap and water or use recognised skin cleanser.
- Remove contaminated clothing and shoes.
- Obtain medical attention if symptoms occur.

C. Inhalation :

- Move exposed person to fresh air. Keep person warm and at rest.
- If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Obtain medical attention if symptoms occur.

D. Ingestion :

- Wash out mouth with water.
- Move exposed person to fresh air. Keep person warm and at rest.
- If material has been swallowed and the exposed person is conscious, give small quantities of water to drink.
- Do not induce vomiting unless directed to do so by medical personnel.
- Obtain medical attention if symptoms occur.

5. Fire Fighting Measures

A. Extinguishing media

- 1) Suitable extinguishing media
: Use an extinguishing agent suitable for the surrounding fire.
- 2) Unsuitable extinguishing media
: Do not use water jet.
- 3) Unusual fire (Big fire) : No data available

B. Unusual fire & Explosion hazard :

- 1) Hazardous combustion product : CO, CO₂, sulfuric acid compound
- 2) Fire & Explosion hazard : No data available

C. Special fire fighting procedure / protection of firefighters :

- 1) Small liquid spill : No data available
- 2) Large spillages : No data available

6. Accidental Release Measure

A. Personal precautions :

No action shall be taken involving any personal risk or without suitable training.
Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment (see section 8).

B. Environmental precautions :

- 1) atmosphere release : No data available
- 2) soil release : No data available
- 3) underwater release : No data available

C. Spill cleanup methods

- 1) Small liquid spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- 2) Large spillages : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with noncombustible, 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.

7. Handling and Storage

A. Handling

Put on appropriate personal protective equipment (see section 8).
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.

B. Storage

Store in accordance with local regulations. Keep container in a cool, well-ventilated area. 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 unlabelled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure Controls / Personal Protection

A. Exposure limit value :

1) DISTILLATES(PETROLEUM), HYDROTREATED HEAVY PARAFFINIC

- Korea : TWA : No data available
STEL : No data available

ACGIH : STEL : No data available
TWA : No data available

OSHA : No data available

2) SOLVENT-REFINED HEAVY NAPHTHENIC

Japan Industrial Hygiene Association : TWA : 3mg/m³ (Mineral oil : mist)
STEL : No data available

ACGIH : STEL : No data available
TWA : 5mg/m³ (Mineral oil : mist)

OSHA : No data available

3) 12-HYDROXY STEARATE

Korea : TWA : No data available
STEL : No data available

ACGIH : TLV-TWA : No data available
TLV-STEL : No data available

OSHA : No data available

4) LITHIUM HYDROXIDE

Korea : TWA : No data available
STEL : No data available

ACGIH : TLV-TWA : No data available
TLV-STEL : No data available

OSHA : No data available

5) TRADE SECRET(S1)

Korea : TWA : No data available
STEL : No data available

ACGIH : TLV-TWA : No data available
TLV-STEL : No data available

OSHA : No data available

6) TRADE SECRET(S2)

Korea : TWA : No data available
STEL : No data available

ACGIH : TLV-TWA : No data available
TLV-STEL : No data available

OSHA : No data available

7) TRADE SECRET(S3)

Korea : TWA : No data available
STEL : No data available

ACGIH : TLV-TWA : No data available
TLV-STEL : No data available

OSHA : No data available

B. Engineering Control :

- 1) Provide local exhaust ventilation system. Ensure adequate ventilation is maintained.
- 2) Ensure compliance with applicable exposure limits.

C. Personal protective equipment

- 1) Respiratory protection

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. 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.

2) Eye protection

Safety glasses Eye protection with side shields.

3) Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

4) Skin / Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

9. Physical and Chemical properties

A. Appearance : Physical state - Semisolid,

B. Odor : No data available

C. Odor Threshold : No data available

D. pH : No data available

E. Melting Point / Freezing Point : No data available

F. Boiling Point / range : No data available

G. Drop Point / Flash point : More than 200°C / approximately 225°C (Estimated by Base oil)

H. Evaporation rate : No data available

I. Flammability Limit (Lower/Upper) : No data available

J. Vapor pressure : No data available

K. Solubility in water : No data available

L. Vapor density No data available

M. Specific Gravity : approximately 900 kg/m₃ (Estimated by Base oil)

N. Partition Coefficient (n-Octanol/Water) : No data available

O. Auto-ignition temperature : No data available

P. Thermal decomposition : No data available

Q. Viscosity : No data available

R. Molecular weight : No data available

10. Stability and Reactivity

A. Stability : The product is stable.

B. Possibility of hazardous reaction : Under normal conditions of storage and use, hazardous reactions will not occur.

C. Condition to avoid : Heat, sparks, open flame sources, such as

D. Incompatible material : No specific data.

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

11. Toxicological Information

A. Route of exposure

- 1) Inhalation : No known significant effects or critical hazards.
- 2) Ingestion : No known significant effects or critical hazards.
- 3) Skin contact : No known significant effects or critical hazards.
- 4) Eye contact : No known significant effects or critical hazards.

B. Delayed, Immediate, and Chronic effects of Short-and Long-term Exposure

1) (DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC)

- Acute toxicity
 - Oral : LC50 > 5000 mg/kg Rat
 - Skin : LC50 > 5000 mg/kg Rabbit
 - Inhalation : No data available
- Skin contact : No data available
- Eye contact or Irritation : No data available
- Sensitization : No data available
- Carcinogenicity : Not applicable.
- Mutagenesis : No data available
- Reproductive toxicity : No data available
- Specified target organ general toxicity - single exposure : No data available
- Specified target organ general toxicity - repetitive exposure : No data available
- Aspiration respiratory organs hazard : No data available

2) SOLVENT-REFINED HEAVY NAPHTHENIC

- Acute toxicity
 - Oral : LC50 > 5000 mg/kg Rat
 - Skin : LC50 > 5000 mg/kg Rat
 - Inhalation : LC50 > 5 mg/l 4 hr Rat
- Skin contact : Mild(rabbit)
- Eye contact or Irritation : Not applicable.
- Sensitization : Not applicable.
- Carcinogenicity : Not applicable.
- Mutagenesis : No data available
- Reproductive toxicity : Not applicable.
- Specified target organ general toxicity - single exposure : Not applicable.
- Specified target organ general toxicity - repetitive exposure : Not applicable.
- Aspiration respiratory organs hazard : No data available

3) 12-HYDROXY STEARATE

- Acute toxicity
 - Oral : No data available
 - Skin : No data available
 - Inhalation : No data available
- Skin contact : No data available
- Eye contact or Irritation : No data available
- Sensitization : No data available
- Carcinogenicity : No data available
- Mutagenesis : No data available

- Reproductive toxicity : No data available
- Specified target organ general toxicity - single exposure : No data available
- Specified target organ general toxicity - repetitive exposure : No data available
- Aspiration respiratory organs hazard : No data available

4) LITHIUM HYDROXIDE

- Acute toxicity
 - Oral : LC50 > 210 mg/kg Rat
 - Skin : Skin Sensitization
 - Inhalation : LC50 /4H > 960 mg/ m3 4H Rat
- Skin contact : Skin and eye corrosive
- Eye contact or Irritation : Skin and eye corrosive
- Sensitization : No data available
- Carcinogenicity : No data available
- Mutagenesis : No data available
- Reproductive toxicity : No data available
- Specified target organ general toxicity - single exposure : No data available
- Specified target organ general toxicity - repetitive exposure : No data available
- Aspiration respiratory organs hazard : No data available

5) TRADE SECRET(S1)

- Acute toxicity
 - Oral : No data available
 - Skin : No data available
 - Inhalation : No data available
- Skin contact : No data available
- Eye contact or Irritation : No data available
- Sensitization : Not applicable.
- Carcinogenicity : Not applicable.
- Mutagenesis : No data available
- Reproductive toxicity : No data available
- Specified target organ general toxicity - single exposure : No data available
- Specified target organ general toxicity - repetitive exposure : No data available
- Aspiration respiratory organs hazard : No data available

6) TRADE SECRET(S2)

- Acute toxicity
 - Oral : LC50 10000 mg/kg Rat
 - Skin : LC50 > 2000 mg/kg Rabbit
 - Inhalation : No data available
- Skin contact : No skin irritation - Rabbit(OECD 404)
- Eye contact or Irritation : No Eye irritation - Rabbit(OECD 405)
- Sensitization : No skin irritation - guinea pig(OECD TG 406)
- Carcinogenicity : No data available
- Mutagenesis : No data available
- Reproductive toxicity : No data available
- Specified target organ general toxicity - single exposure : No data available
- Specified target organ general toxicity - repetitive exposure : No data available
- Aspiration respiratory organs hazard : No data available

7) TRADE SECRET(S3)

- Acute toxicity
 - Oral : LC50 > 5000 mg/kg Rat
 - Skin : LC50 > 2000 mg/kg Rabbit
 - Inhalation : No data available
- Skin contact : Not applicable.
- Eye contact or Irritation : Not applicable.
- Sensitization : Not applicable.
- Carcinogenicity : No data available
- Mutagenesis : No data available
- Reproductive toxicity : No data available
- Specified target organ general toxicity - single exposure : No data available
- Specified target organ general toxicity - repetitive exposure : No data available
- Aspiration respiratory organs hazard : No data available

12. Ecological Information

A. Ecotoxicity

1) DISTILLATES(PETROLEUM), HYDROTREATED HEAVY PARAFFINIC

- Fishes : No data available
- Crustacea : No data available
- Seaweeds : No data available

2) DISTILLATES (PETROLEUM), SOLVENT-REFINED HEAVY NAPHTHENIC

- Fishes : LL50 > 100 mg/l 96 hr fathead minnow
- Crustacea : EL50 > 10,000 mg/l 48 hr Daphnia magna
- Seaweeds : NOEL > 100 mg/l selsnastrum

3) 12-HYDROXY STEARATE

- Fishes : LC50 0.058 mg/l 14 day
- Crustacea : No data available
- Seaweeds : No data available

4) LITHIUM HYDROXIDE

- Fishes : LC50 100 mg/l 96H(OECD TEST 203)
- Crustacea : LC50 ca.33.5 mg/l 46H(OECD TEST 202)
- Seaweeds : EC50 41.62 mg/l 72H(OECD TEST 201)

5) TRADE SECRET(S1)

- Fishes : No data available
- Crustacea : No data available
- Seaweeds : No data available

6) TRADE SECRET(S2)

- Fishes : LC50 > 1,000 mg/l 96 hr fathead minnow
- Crustacea : EC50 41 mg/l 48 hr Daphnia magna
- Seaweeds : EC50 100 mg/l 72 hr green alage

7) TRADE SECRET(S3)

- Fishes : No data available
- Crustacea : No data available
- Seaweeds : No data available

B. Persistence and Degradability

1) DISTILLATES(PETROLEUM), HYDROTREATED HEAVY PARAFFINIC

- Persistence : No data available
- Degradability : 6 (%) 28 day

2) DISTILLATES (PETROLEUM), SOLVENT-REFINED HEAVY NAPHTHENIC

- Persistence : No data available
- Degradability : No data available

3) 12-HYDROXY STEARATE

- Persistence : log Kow 6.03
- Degradability : No data available

4) LITHIUM HYDROXIDE

- Persistence : No data available
- Degradability : No data available

5) TRADE SECRET(S1)

- Persistence : No data available
- Degradability : No data available

6) TRADE SECRET(S2)

- Persistence : No data available
- Degradability : No data available

7) TRADE SECRET(S3)

- Persistence : No data available
- Degradability : No data available

C. Bio accumulation

1) DISTILLATES(PETROLEUM), HYDROTREATED HEAVY PARAFFINIC

- Accumulation : No data available
- Biodegradable : No data available

2) DISTILLATES (PETROLEUM), SOLVENT-REFINED HEAVY NAPHTHENIC

- Accumulation : No data available
- Biodegradable : No data available

3) 12-HYDROXY STEARATE

- Accumulation : No data available
- Biodegradable : No data available

4) LITHIUM HYDROXIDE

- Accumulation : No data available
- Biodegradable : No data available

5) TRADE SECRET(S1)

- Accumulation : No data available
- Biodegradable : No data available

6) TRADE SECRET(S2)

- Accumulation : No data available
- Biodegradable : No data available

7) TRADE SECRET(S3)

- Accumulation : No data available
- Biodegradable : No data available

D. Mobility in Soil

No data available

E. Bioaccumulative Potential Hazardous to ozone layer

- 1) **(DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC)** : No data available
- 2) **DISTILLATES (PETROLEUM), SOLVENT-REFINED HEAVY NAPHTHENIC** : No data available
- 3) **12-HYDROXY STEARATE** : No data available
- 4) **LITHIUM HYDROXIDE** : No data available
- 5) **TRADE SECRET(S1)** : No data available
- 6) **TRADE SECRET(S2)** : No data available
- 7) **TRADE SECRET(S3)** : No data available

F. Other Information

No data available

13. Disposal Consideration

A. Disposal method :

Disposal according to local regulations.

The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

B. Disposal instruction : No data available

C. Waste code : No data available

14. Transportation Information

A. UN classificaion : Not regulated

B. Proper Shipping name : No data available

C. Class/division : No data available

D. Packing group : No data available

15. Regulatory Information

1) DISTILLATES(PETROLEUM), HYDROTREATED HEAVY PARAFFINIC

A. Industrial safety and health act : Not applicable

B. Chemical control act : Not applicable

C. Dangerous Goods Safe Control Act : Category 4 Dangerous Goods (Flammable Liquids), Grade 4 petroleum chemicals

D. Wastes control act : designated waste

E. Other internal and foreign acts

- 1. U.S

OSHA regulation (29 CFR1910.119) : Not applicable

CERCLA 103 regulation(40 CFR 302.4) : Not applicable

EPCRA 302 regulation(40 CFR355.30) : Not applicable

EPCRA 304 regulation(40 CFR355.40) : Not applicable

EPCRA 313 regulation(40 CFR372.65) : Not applicable

2) DISTILLATES (PETROLEUM), SOLVENT-REFINED HEAVY NAPHTHENIC

A. Industrial safety and health act : Not applicable

B. Chemical control act : Not applicable

C. Dangerous Goods Safe Control Act : Category 4 Dangerous Goods (Flammable Liquids), Grade 4 petroleum chemicals

D. Wastes control act : designated waste

E. Other internal and foreign acts

- 1. U.S

OSHA regulation (29 CFR1910.119) : Not applicable

CERCLA 103 regulation(40 CFR 302.4) : Not applicable

EPCRA 302 regulation(40 CFR355.30) : Not applicable

EPCRA 304 regulation(40 CFR355.40) : Not applicable

EPCRA 313 regulation(40 CFR372.65) : Not applicable

3) 12-HYDROXY STEARATE

A. Industrial safety and health act : Not applicable

B. Chemical control act : Not applicable

C. Dangerous Goods Safe Control Act : Not applicable

D. Wastes control act : Not applicable

E. Other internal and foreign acts

- 1. U.S

OSHA regulation (29 CFR1910.119) : Not applicable

CERCLA 103 regulation(40 CFR 302.4) : Not applicable

EPCRA 302 regulation(40 CFR355.30) : Not applicable

EPCRA 304 regulation(40 CFR355.40) : Not applicable

EPCRA 313 regulation(40 CFR372.65) : Not applicable

4) LITHIUM HYDROXIDE

A. Industrial safety and health act : Not applicable

B. Chemical control act : Not applicable

C. Dangerous Goods Safe Control Act : Not applicable

D. Wastes control act : Not applicable

E. Other internal and foreign acts

- 1. U.S

OSHA regulation (29 CFR1910.119) : Not applicable

CERCLA 103 regulation(40 CFR 302.4) : Not applicable

EPCRA 302 regulation(40 CFR355.30) : Not applicable

EPCRA 304 regulation(40 CFR355.40) : Not applicable

EPCRA 313 regulation(40 CFR372.65) : Not applicable

5) TRADE SECRET(S1)

A. Industrial safety and health act : Not applicable

B. Chemical control act : Not applicable

C. Dangerous Goods Safe Control Act : Category 4 Dangerous Goods (Flammable Liquids), Grade 3 petroleum chemicals

D. Wastes control act : designated waste

E. Other internal and foreign acts

- 1. U.S

OSHA regulation (29 CFR1910.119) : Not applicable

CERCLA 103 regulation(40 CFR 302.4) : Not applicable

EPCRA 302 regulation(40 CFR355.30) : Not applicable

EPCRA 304 regulation(40 CFR355.40) : Not applicable

EPCRA 313 regulation(40 CFR372.65) : Not applicable

6) TRADE SECRET(S2)

A. Industrial safety and health act : Not applicable

B. Chemical control act : Not applicable

C. Dangerous Goods Safe Control Act : Not applicable

D. Wastes control act : Not applicable

E. Other internal and foreign acts

- 1. U.S

OSHA regulation (29 CFR1910.119) : Not applicable

CERCLA 103 regulation(40 CFR 302.4) : Not applicable

EPCRA 302 regulation(40 CFR355.30) : Not applicable

EPCRA 304 regulation(40 CFR355.40) : Not applicable

EPCRA 313 regulation(40 CFR372.65) : Not applicable

7) TRADE SECRET(S3)

A. Industrial safety and health act : Not applicable

B. Chemical control act : Not applicable

C. Dangerous Goods Safe Control Act : Not applicable

D. Wastes control act : designated waste

E. Other internal and foreign acts

- 1. U.S

OSHA regulation (29 CFR1910.119) : Not applicable

CERCLA 103 regulation(40 CFR 302.4) : Not applicable

EPCRA 302 regulation(40 CFR355.30) : Not applicable

EPCRA 304 regulation(40 CFR355.40) : Not applicable

EPCRA 313 regulation(40 CFR372.65) : Not applicable

16. Other Information

The information presented herein is believed to be factual as it has been derived from the works from the works and opinions of persons believed to be qualified experts; however, nothing contained in this information is to be taken as a warrant or representation for which **NTGKOREA Co., LTD.**

Bears legal responsibility. The user should review any recommendation in the specific context of the intended use to determine whether they are appropriate.

A. Issue date : 2007.01.20

B. La revision : 2013.06.28 Accordance with GHS regulation (RE1)

2017.02.20 (RE2)

2017.07.19 (RE3)

2017.08.24 (RE4)