

Material Safety Data Sheet

(AA15802-0000000029)

* Please use it by reflecting the MSDS number.

1. information about chemicals and companies

A. Product name	OIL 2000
B. Recommended uses and restrictions on use of products	
recommended use	No data
restrictions in use	No data
C. Supplier information (In case of imported goods, domestic supplier information available for emergency contact)	
Sortation	Suppliers
Corporate name	Dongil Cam Co., Ltd
Address	(1144) Dongil Cam, 43-4 Gwangjeok-ro 227beon-gil, Gwangjeok-myeon, Yangju-si, Gyeonggi-do, Republic of Korea
an emergency telephone number	0318559575
Sortation	Manufacturer
Corporate name	Dongil Cam Co., Ltd
Address	(1144) Dongil Cam, 43-4 Gwangjeok-ro 227beon-gil, Gwangjeok-myeon,
an emergency telephone number	0318559575
D. Manufacturer/Supplier Additional Information	
No data	

2. Hazardous and dangerous

A. Classification of hazards and risks

B. Warning signs including precautionary measures

Picture text
a sign language



Hazardous/Dangerous Phrases

a dangerousphrase NO data

a precautionary phrase

C. Other hazards and risks not included in the criteria for classifying hazards and risks (e.g., dust explosion risks)

0 Product NFPA Rating: Health, Fire, Reactivity

※ 0-insufficient, 1-slight, 2-normal, 3-high, 4-very high)

Hydrogen-treated hard paraffin refined oil (oil) (DISTILLATE) health=1, fire=1, reactivity=0

Lysinole Mountain Health =1, Fire = 1, Reactivity = 0

Alcohol, C12-14-2nd, ethoxylation. Health = 0, Fire = 1, Reactivity = 0

alpha.-Dodecyl-.IoT hydroxypoly(oxy-1,2-ethanediyl) phosphate Health=2, Fire=1, Reactive=No data

3. Name and content of components

Name of chemical substance	Idioms and tinnitus	CAS number or identification number		Content (%)	
		CAS Number	Identification number	Range	single
Distillates (petroleum), hydrotreated light paraffinic	Mineral oil, petroleum distillates, hydrotreated light paraffinic	64742-55-8	No data	No data	50
Ricinoleic acid	(Z)-12-hydroxy-9-octadecenoic acid((Z)-12-HYDROXY-9-OCTADECENOIC ACID);	141-22-0	No data	No data	4
C12-14 sec-pareth-20	T-9;	84133-50-6	No data	No data	30
Laureth-4 phosphate	No data	39464-66-9	No data	No data	16

4. a first-aid trick

A. When it gets into your eyes

Immediately wipe off any dirt on the skin upon contact and wash the skin and eyes under running water for at least 20 minutes

Take medical action immediately

If eye irritation persists, seek medical action and advice.

B. When you come into contact with your skin

Prevent the spread of contaminated areas during minor skin contact

Wash skin and eyes immediately with running water for at least 20 minutes upon contact with substances

Remove contaminated clothes and shoes and isolate contaminated areas

If it is a hot material, soak or wash the affected area in a large amount of cold water to remove heat

B. When you come into contact with your skin

Get urgent medical attention

Take off your contaminated clothing.

Seek medical measures and advice if skin irritation occurs.

C. When you inhale it

If you eat or inhale substances, do not ventilate using mouth-to-mouth mouth exercise and use appropriate respiratory equipment

Remove with clean air if exposed to excess dust or fumes and take medical action if you have cough or other symptoms.

Seek medical measures and advice if exposed or concerned about exposure.

D. When I ate it

If you eat or inhale substances, do not ventilate using mouth-to-mouth mouth exercise and use appropriate respiratory equipment

E. Other precautions of doctors

Ensure that medical personnel are aware of the substance and take protective measures

Contact the medical staff in case of exposure and take special emergency measures such as follow-up.

5. How to deal with explosion and fire

A. Proper (and inappropriate) digestive medicine

Use dry sand or soil for asphyxiation

Use alcohol foam, carbon dioxide or water spray for digestion related to this substance

B. Specific hazards arising from chemicals (e.g., hazardous substances generated during combustion)

Non-inflammable or material itself does not burn, but decomposes when heated to cause corrosive/toxic fumes

Some may burn but do not ignite easily

Containers may explode when heated

During burning, irritating and very toxic gases can be generated by pyrolysis or combustion

C. Protective equipment and preventive measures to be worn when extinguishing a fire

Please be careful as it may melt and be transported

Digest away from the area and keep a safe distance

Rescuers should wear appropriate protective gear.

If it's not dangerous, move the container out of the fire area

Dig a ditch for the disposal of the digester so that the material does not scatter

Use fire extinguishers that fit the type of fire

C. Protective equipment and preventive measures to be worn when extinguishing a fire

Leaks may cause contamination

Some may be transported to high temperatures

In case of tank fire, use unmanned fire extinguishing equipment and, if impossible, leave to burn

In the event of a tank fire, step back from the tank engulfed in flames

In case of a tank fire, immediately withdraw from the pressure release unit if there is a high pitch or the tank discoloration

In case of tank fire, cool the container with plenty of water even after extinguishing

In case of tank fire, extinguish fire at maximum distance or use unmanned fire extinguishing equipment

6. How to deal with leakage accidents

A. Measures and protective equipment necessary to protect the human body

Cover with plastic sheet to stop diffusion

Those who do not need to enter or are not equipped with protective equipment should not enter.

If it is not dangerous, stop the leak

Remove all ignition sources

Isolate the contaminated area.

Wipe off any spills immediately, and follow the precautions of the protective equipment.

Do not touch damaged containers or leaks without wearing proper protective clothing

Pay attention to substances and conditions that should be avoided

Avoid inhaling (dust, fume, gas, mist, steam, and spray).

B. Measures necessary to protect the environment

Prevent inflows into waterways, sewers, cellars, and enclosed spaces

C. Methods of purification or removal

Absorb liquid and wash off contaminated areas with detergent and water.

Remove airy dust and wet with water to prevent it from dispersing.

Absorb spills with inert substances (e.g., dry sand or soil) and place them in a chemical waste container.

7. HANDLING AND STORING METHOD

A. Safety instructions

Follow all MSDS/label precautions as product debris may remain after the container has been emptied.

Do not handle all safety precautions until you have read and understood them.

A. Safety instructions

Avoid inhaling (dust, fume, gas, mist, steam, and spray).

Wash the handling area thoroughly after handling.

Only handle outdoors or in well ventilated areas.

Avoid long-term or continuous skin contact.

Use carefully when handling/storing.

Open the cap carefully before opening.

B. Secure storage methods (including conditions to be avoided)

Drain the empty drum completely and block it properly, immediately return it to the drum controller or arrange it properly.

Store the container tightly sealed in a well-ventilated place.

Pay attention to substances and conditions that should be avoided

8. Anti-exposure and personal protective equipment

A. Chemical exposure standards, biological exposure standards, etc

	Distillates (petroleum), hydrotreated light paraffinic - TWA : NO DATA , STEL :NO DATA
domestic regulations	Ricinoleic acid - TWA : NO DATA , STEL : NO DATA C12-14 sec-pareth-20 - TWA : NO DATA , STEL : NO DATA Laureth-4 phosphate - TWA : NO DATA , STEL : NO DATA
ACGIH regulations	Distillates (petroleum), hydrotreated light paraffinic - TWA : NO DATA , STEL : NO DATA Ricinoleic acid - TWA : NO DATA , STEL : NO DATA C12-14 sec-pareth-20 - TWA : NO DATA , STEL : NO DATA Laureth-4 phosphate - TWA : NO DATA , STEL : NO DATA
biological exposure standards	Distillates (petroleum), hydrotreated light paraffinic - NO DATA Ricinoleic acid - NO DATA C12-14 sec-pareth-20 - NO DATA Laureth-4 phosphate - NO DATA
Other exposure criteria	Distillates (petroleum), hydrotreated light paraffinic - NO DATA Ricinoleic acid - NO DATA C12-14 sec-pareth-20 - NO DATA

Other exposure criteria Laureth-4 phosphate - NO DATA

B. Proper engineering management

Use process isolation, local exhaust, or other engineering management to adjust the air level below the exposure limit.

Install face wash facilities and safety showers for facilities that store or use this substance.

If dust, fumes, or mist is generated during operation, ventilate to ensure air pollution remains below the exposure limit

C. Personal protective equipment

Respiratory protection For breathing, certified by the Korea Occupational Safety and Health Agency to suit the physicochemical properties of exposed substances Wear protective gear

For gaseous/liquid substances, the following respiratory protection is recommended

-Isolated front type gas mask (for organic compounds (for acid gases in case of acid gases) or Isolated type gas mask (for organic compounds (for acid gases in case of acid gases) or direct front type gas) Masks (for organic compounds (for acid gases, for acid gases) or on the other hand gas masks (organic compounds)

Water (for acid gas in the case of acid gas) or electric gas mask

If oxygen is low (<19.5%), wear a vent mask or self-contained air respirator

eye protection Install face wash and emergency shower facilities near the workplace

Use chemical protective glasses and face shields

Hand protection Wear suitable chemical resistant gloves

physical protection Wear suitable chemical resistant protective clothing

9. physicochemical properties

Product characteristics

Sortation		content
A. Appearance (physical condition, color, etc.)	character	Liquid
	Color	colorless and transparent
B. The smell		odorless
C. Smell threshold		NO DATA
D. pH		6.5~7.5
E. Melting/freezing point		NO DATA
F. Initial boiling point and boiling point range		NO DATA
G. A flashpoint		180°C or higher
H. Evaporation rate		NO DATA
I. Flammable (solid, gas)		NO DATA
J. Upper/lower limits on the range of ignition or explosion		NO DATA
K. Steam pressure		NO DATA

Product characteristics

Sortation	content
L. Solubility	NO DATA
M. Steam density	NO DATA
N. Specific gravity	NO DATA
O. n-octanol/water distribution coefficient	NO DATA
P. spontaneous ignition temperature	NO DATA
Q. decomposition temperature	NO DATA
R. Viscosity	NO DATA
S. molecular weight	NO DATA

Characteristics by Components

Components	Sortation	content	
Distillates (petroleum), hydrotreated light paraffinic	A. Appearance (physical condition, Color, etc.)	character	
		Color	Liquid
			colorless
	B. The smell		a distinctive smell
	C. Smell threshold		NO DATA
	D. PH		NO DATA
	E. Melting/freezing point		NO DATA
	F. Initial boiling point and boiling point range		150 ~ 160°C (1air pressure)
	G. A flashpoint		> 124 °C
	H. Evaporation rate		NO DATA
	I. Flammable (solid,gas)		NO DATA
	J. Flame or explosion range the upper/lower limits of		-/-
	K. Steam pressure		NO DATA
	L. Solubility		insoluble
M. Steam density		NO DATA	
N. Specific gravity		0.84-0.94 (15°C, an estimate)	
Distillates (petroleum),	O. N-ok Carbon/water	3.9 ~ 6 (an estimate)	

Characteristics by Components

Components	Sortation		content
hydrotreated light paraffinic	distribution coefficient		
Distillates (petroleum), hydrotreated light paraffinic	P. Natural firing temperature		NO DATA
	Q. Decomposition temperature		NO DATA
	R. Viscosity		<19cSt (40°C)
	S. molecular weight		NO DATA
Ricinoleic acid	A. Appearance (physical condition, Color, etc.)	character	Liquid
		Color	from achromatic to yellow
	B. The smell		a unique smell, a good smell
	C. Smell threshold		NO DATA
	D. PH		NO DATA
	E. Melting/freezing point		5 ~ 6°C
	F. Initial boiling point and boiling point range		226 ~ 245°C
	G. A flashpoint		224 °C
	H. Evaporation rate		NO DATA
	I. Flammable (solid, gas)		NO DATA
	J. Flame or explosion range the upper/lower limits of		- / 0.45 %
	K. Steam pressure		10 mmHg (at 226C)
	L. Solubility		insoluble (solvent solubility: acetone, ethanol, ketones, organic/miscible: alcohol, chloroform, ether)
	M. Steam density		10.3 ((Air=1) (Density: 0.945 g/mL at 21°C))
	N. Specific gravity		0.940 ((Water=1) at 4C)
	O. N-ok Carbon/water distribution coefficient		
	P. Natural firing temperature		NO DATA
	Q. Decomposition temperature		NO DATA
	R. Viscosity		4 cSt
S. molecular weight		298.45	
C12-14 sec-pareth-20	A. Appearance (physical	character	Liquid

Characteristics by Components

Components	Sortation		content
C12-14 sec-pareth-20	condition, Color, etc.)	Color	colorless
	B. The smell		NO DATA
	C. Smell threshold		NO DATA
	D. PH		NO DATA
	E. Melting/freezing point		NO DATA
	F. Initial boiling point and boiling point range		NO DATA
	G. A flashpoint		NO DATA
	H. Evaporation rate		NO DATA
	I. Flammable (solid, gas)		NO DATA
	J. Flame or explosion range the upper/lower limits of		-/-
	K. Steam pressure		NO DATA
	L. Solubility		NO DATA
	M. Steam density		NO DATA
	N. Specific gravity		0.965
	O. N-ok Carbon/water distribution coefficient		3.32
	P. Natural firing temperature		NO DATA
Q. Decomposition temperature		NO DATA	
R. Viscosity		NO DATA	
S. molecular weight		NO DATA	
Laureth-4 phosphate	A. Appearance (physical condition, Color, etc.)	character	Liquid
	Color		NO DATA
	B. The smell		NO DATA
	C. Smell threshold		NO DATA
	D. PH		NO DATA
	E. Melting/freezing point		NO DATA
	F. Initial boiling point and boiling point range		304.4 °C
G. A flashpoint		74.9 °C	

Characteristics by Components

Components	Sortation	content
Laureth-4 phosphate	H. Evaporation rate	NO DATA
	I. Flammable (solid, gas)	NO DATA
	J. Flame or explosion range the upper/lower limits of	NO DATA
	K. Steam pressure	NO DATA
	L. Solubility	NO DATA
	M. Steam density	NO DATA
	N. Specific gravity	NO DATA
	O. N-ok Carbon/water distribution coefficient	NO DATA
	P. Natural firing temperature	NO DATA
	Q. Decomposition temperature	NO DATA
	R. Viscosity	NO DATA
	S. molecular weight	442.52

10. Stability and responsiveness

A. Chemical stability and possibility of adverse reactions

Non-inflammable or material itself does not burn, but decomposes when heated to cause corrosive/toxic fumes

Some may burn but do not ignite easily

Can decompose at high temperatures to produce toxic gases

Containers may explode when heated

In case of fire, irritable and toxic gases can be generated

Stable at room temperature and pressure

Inhalation of substances can be harmful

Some liquids may cause dizziness and vapor that causes suffocation

Contact can cause burns to the skin and eyes

Inhalation of asbestos can damage lungs

Some liquids may produce steam that causes dizziness and suffocation

Fire can cause irritable, corrosive, and toxic gases

B. Conditions to be avoided (static discharge, shock, vibration, etc.)

Ignition sources such as heat, spark, flame, etc

C. Substances that should be avoided

combustible substances

D. Hazardous substances produced during decomposition

Corrosive/toxic fumes

irritable, corrosive, toxic gases

11. information about toxicity

A. Information on most likely exposure routes

the product	No data
Distillates (petroleum), hydrotreated light paraffinic	stimulus
Ricinoleic acid	diarrhea, irritation, allergic reactions, skin disorders
C12-14 sec-pareth-20	NO DATA
Laureth-4 phosphate	NO DATA

B. Health hazard information

acute toxicity	an oral form	the product	No data
		Distillates (petroleum), hydrotreated light paraffinic	LD50 > 5000 mg/kg Rat
		Ricinoleic acid	No data
		C12-14 sec-pareth-20	No data
		Laureth-4 phosphate	LD50 6550 mg/kg Rat
	trans dermal skin	the product	No data
		Distillates (petroleum), hydrotreated light paraffinic	LD50 > 2000 mg/kg Rabbit
		Ricinoleic acid	No data
		C12-14 sec-pareth-20	No data
		Laureth-4 phosphate	Inhale
	Inhale	the product	No data

B. Health hazard information

acute toxicity	Inhale	Distillates (petroleum), hydrotreated light paraffinic	Mist LC50 2.18 mg/ℓ 4 hr Rat
		Ricinoleic acid	No data
		C12-14 sec-pareth-20	No data
		Laureth-4 phosphate	No data
Corrosive or irritable skin		the product	No data
		Distillates (petroleum), hydrotreated light paraffinic	a weak stimulus (rabbit)
		Ricinoleic acid	No data
		C12-14 sec-pareth-20	irritation to the skin
		Laureth-4 phosphate	Draize test administered 500uL/24h on rabbit skin shows severe irritation
Severe eye damage or irritation		the product	No data
		Distillates (petroleum), hydrotreated light paraffinic	Non-polar (rabbit)
		Ricinoleic acid	10mg eyes - guinea pig weak stimulation
		C12-14 sec-pareth-20	irritation to the eyes
		Laureth-4 phosphate	Draize Test administered 100uL/24h to the rabbit eye shows severe irritation
respiratory sensitivity		the product	No data
		Distillates (petroleum), hydrotreated light paraffinic	No data
		Ricinoleic acid	No data
		C12-14 sec-pareth-20	No data
		Laureth-4 phosphate	No data
skin sensitivity		the product	No data
		Distillates (petroleum), hydrotreated light paraffinic	non-sensitive (Guinea Pig)
		Ricinoleic acid	No data
		C12-14 sec-pareth-20	No data

skin sensitivity		Laureth-4 phosphate	No data
carcinogenicity	IARC	the product	No data
		Distillates (petroleum), hydrotreated light paraffinic	No data
		Ricinoleic acid	No data
		C12-14 sec-pareth-20	No data
		Laureth-4 phosphate	No data
	NTP	the product	No data
		Distillates (petroleum), hydrotreated light paraffinic	No data
		Ricinoleic acid	No data
		C12-14 sec-pareth-20	No data
		Laureth-4 phosphate	No data
	OSHA	the product	No data
		Distillates (petroleum), hydrotreated light paraffinic	No data
		Ricinoleic acid	No data
		C12-14 sec-pareth-20	No data
		Laureth-4 phosphate	No data
	ACGIH	the product	No data
		Distillates (petroleum), hydrotreated light paraffinic	No data
		Ricinoleic acid	No data
		C12-14 sec-pareth-20	No data
		Laureth-4 phosphate	No data
	Industrial Safety and Health Act	the product	No data
Distillates (petroleum), hydrotreated light paraffinic		No data	
Ricinoleic acid		No data	

carcinogenicity	Industrial Safety and Health Act	C12-14 sec-pareth-20	No data
		Laureth-4 phosphate	No data
	Ministry of Employment and Labor Notice	the product	No data
		Distillates (petroleum), hydrotreated light paraffinic	No data
		Ricinoleic acid	No data
		C12-14 sec-pareth-20	No data
		Laureth-4 phosphate	No data
	EU CLP	the product	No data
		Distillates (petroleum), hydrotreated light paraffinic	1B (except when DMSO extract measured by IP346 method is less than 3%)
		Ricinoleic acid	No data
		C12-14 sec-pareth-20	No data
		Laureth-4 phosphate	No data
germ cell mutagenicity	the product	No data	
	Distillates (petroleum), hydrotreated light paraffinic	No data	
	Ricinoleic acid	No data	
	C12-14 sec-pareth-20	No data	
	Laureth-4 phosphate	No data	
reproductive toxicity	the product	No data	
	Distillates (petroleum), hydrotreated light paraffinic	No data	
	Ricinoleic acid	No data	
	C12-14 sec-pareth-20	No data	
	Laureth-4 phosphate	No data	
Specific target organ toxicity (one exposure)	the product	No data	
	Distillates (petroleum), hydrotreated light paraffinic	No data	

Specific target organ toxicity (one exposure)	Ricinoleic acid	No data
	C12-14 sec-pareth-20	Inhalation stimulates airways
	Laureth-4 phosphate	No data
Specific target organ toxicity (repeated exposure)	the product	No data
	Distillates (petroleum), hydrotreated light paraffinic	No data
	Ricinoleic acid	No data
	C12-14 sec-pareth-20	No data
	Laureth-4 phosphate	No data
Harmful to aspiration	the product	No data
	Distillates (petroleum), hydrotreated light paraffinic	No data
	Ricinoleic acid	No data
	C12-14 sec-pareth-20	No data
	Laureth-4 phosphate	No data

12. environmental impact

A. Ecotoxicity

Fish	the product	No data
	Distillates (petroleum), hydrotreated light paraffinic	LC50 > 5000 mg/ℓ 96 hr <i>Oncorhynchus mykiss</i>
	Ricinoleic acid	No data
	C12-14 sec-pareth-20	LC50 3.2 mg/ℓ 96 hr <i>Pimephales promelas</i>
	Laureth-4 phosphate	No data
crustaceans	the product	No data
	Distillates (petroleum), hydrotreated light paraffinic	EC50 > 1000 mg/ℓ 48 hr <i>Daphnia magna</i>
	Ricinoleic acid	No data
	C12-14 sec-pareth-20	No data
	Laureth-4 phosphate	No data

A. Ecotoxicity

bird	the product	No data
	Distillates (petroleum), hydrotreated light paraffinic	No data
	Ricinoleic acid	No data
	C12-14 sec-pareth-20	No data
	Laureth-4 phosphate	No data

B. Residual and degradable

Residuality	the product	No data
	Distillates (petroleum), hydrotreated light paraffinic	log Kow 3.9 ~ 6 (an estimate)
	Ricinoleic acid	No data
	C12-14 sec-pareth-20	log Kow 3.32
	Laureth-4 phosphate	No data
Degradable	the product	No data
	Distillates (petroleum), hydrotreated light paraffinic	No data
	Ricinoleic acid	No data
	C12-14 sec-pareth-20	No data
	Laureth-4 phosphate	No data

C. Bio-enriched

Concentration	the product	No data
	Distillates (petroleum), hydrotreated light paraffinic	No data
	Ricinoleic acid	BCF 56.23
	C12-14 sec-pareth-20	BCF 72.4
	Laureth-4 phosphate	No data
biodegradable	the product	No data
	Distillates (petroleum), hydrotreated light	6 (%) 28 days (ventilation, household sewage, not easily decomposed)

C. Bio-enriched

biodegradable	paraffinic	
	Ricinoleic acid	No data
	C12-14 sec-pareth-20	No data
	Laureth-4 phosphate	No data

D. Soil mobility

the product	No data
Distillates (petroleum), hydrotreated light paraffinic	No data
Ricinoleic acid	No data
C12-14 sec-pareth-20	No data
Laureth-4 phosphate	No data

E. Other harmful effects

the product	No data
Distillates (petroleum), hydrotreated light paraffinic	Fish: NOEC(Pimephales promelas) >5000 mg/L/7day
Ricinoleic acid	No data
C12-14 sec-pareth-20	No data
Laureth-4 phosphate	No data

13. Precautions for disposal

A. Method of disposal

- 1) After separating oil and water, incinerate the separated oil components, and treat the remaining water at the water pollution prevention facility 0h.
- 2) Incineration or stabilization treatment of residues after treatment by evaporation and concentration.
- 3) Incineration of the residue after treatment by agglomeration and precipitation.
- 4) Refine by separation, distillation, extraction, filtration, and pyrolysis.
- 5) Incineration Take care of my stabilization.

B. Precautions for disposal (including disposal of contaminated containers and packaging)

Dispose of the contents containers (in accordance with the relevant laws and regulations).

14. Information required for transportation

A. United Nations number

No data

B. Proper shipping name of United Nations

No data

No data

C. Risk rating in transportation

No data

D. Container class (if applicable)

E. Marine pollutants (indicated as applicable or non-saccharides)

Choice

F. Special safety measures that the user needs or needs to know about transportation or means of transportation

emergency measures in case of fire

No data

Emergency Measures in the event of spill

No data

15. Status of legal regulations

A. Regulations under the Occupational Safety and Health Act

NO DATA

B. Regulations under the Chemical Substances Control Act

NO DATA

C. Regulations under the Dangerous Goods Safety Management Act

Class 4: Inflammable liquids 5. Third petroleum products (non-water-soluble liquids) (2,000 liters)

D. Regulations under the Waste Management Act

NO DATA

E. Other regulations under domestic and foreign laws

domestic regulation NO DATA

Foreign regulations NO DATA

16. Other references

A. Source of data

15. Legal regulatory status: This MSDS was prepared based on internal technical data and OECD eChemPortal, ECHA, NITE, TOXNET, IPSC, KOSHA, etc.

B. Date of initial preparation

2019-01-20

C. Number of revisions and last revision date

Number of revisions: 4th episode

Last revision date: 2024-10-25

D. Other

This information was prepared based on the currently available DB to protect the health, environment, and safety of workers.