

1. Chemical product and company identification

Substance name : OLFINE D-10H

Recommended use of the chemical and restrictions on use

Recommended use : Additive

Restrictions on use : General industrial use

Company information

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2. Hazards identification

GHS classification

Physical hazards	Explosives	classification not possible
	Flammable gases	No classification
	Aerosol	classification not possible
	Oxidizing gases	No classification
	Gases under pressure	No classification
	Flammable liquids	No classification
	Flammable solids	No classification
	Self-reactive substances and mixtures	classification not possible
	Pyrophoric liquids	No classification
	Pyrophoric solids	No classification
	Self-heating substances and mixtures	classification not possible
	Substances and mixtures which in contact with water emit flammable gases	classification not possible
	Oxidizing liquids	No classification
	Oxidizing solids	No classification
	Organic peroxides	classification not possible
	Corrosive to metals	classification not possible
	Desensitized explosives	classification not possible
Health hazards	Acute toxicity (oral)	No classification
	Acute toxicity (dermal)	No classification

	Acute toxicity (inhalation:gas)	classification not possible
	Acute toxicity (inhalation:vapours)	classification not possible
	Acute toxicity (inhalation:dust/mist)	No classification
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 1
	Respiratory sensitization	classification not possible
	Skin sensitization	Category 1
	Germ cell mutagenicity	classification not possible
	Carcinogenicity	classification not possible
	Reproductive toxicity	classification not possible
	Specific target organ toxicity (single exposure)	Category 1
	Specific target organ toxicity (repeated exposure)	classification not possible
	Aspiration hazard	classification not possible
Environmental hazards	Hazardous to the aquatic environment, short-term (acute)	Category 3
	Hazardous to the aquatic environment, long-term (chronic)	Category 3
	Hazardous to the ozone layer	classification not possible

Hazard
pictograms



GHS Signal word : Danger

Hazard statements : Causes skin irritation. (H315)
May cause an allergic skin reaction. (H317)
Causes serious eye damage. (H318)
Causes damage to organs (H370)
Harmful to aquatic life with long lasting effects. (H412)

Precautionary statements

Prevention : Do not breathe dust, fume, gas, mist, vapours, spray. (P260)
Wash hands, forearms and face thoroughly after handling. (P264)
Do not eat, drink or smoke when using this product. (P270)

	Contaminated work clothing should not be allowed out of the workplace. (P272)
	Avoid release to the environment. (P273)
	Wear protective gloves, protective clothing, eye protection, face protection. (P280)
Response	: IF ON SKIN: Wash with plenty of soap and water. (P302+P352) If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338) If exposed or concerned: Call a doctor. (P308+P311) Immediately call a doctor. (P310) Specific treatment (P321) If skin irritation or rash occurs: Get medical advice/attention. (P333+P313) Take off contaminated clothing and wash it before reuse. (P362+P364)
Storage	: Store locked up. (P405)
Disposal	: Dispose of contents/container in accordance with local/regional/national/international regulations. (P501)

3. Composition/information on ingredients

Distinction of substance or mixture : Mixture

Generic name : Surfactant composition

Name	Concentration (%)	Reference number in the gazette list		CAS-No.
		CSCL No	ISHL No	
2,4,7,9-Tetramethyl-5-decyne-4,7-diol	75	(2)-263	Existing Chemical Substance	126-86-3
Ethane-1,2-diol	25	(2)-230	Existing Chemical Substance	107-21-1

4. First aid measures

First aid measures

First-aid measures general	: If you feel unwell, seek medical advice (show the label where possible). Move out of dangerous area. Take off contaminated clothing and shoes immediately. Never give anything by mouth to an unconscious person.
First-aid measures after	: Remove the sufferers to fresh air places immediately. If breathing

inhalation	has stopped or is labored, give artificial respiration, and get medical advices.
First-aid measures after skin contact	: Take off contaminated clothes, shoes and socks. And wash sticking parts off with soap and plenty of water. If the external changes are observed or the symptoms such as irritation or itchy appears, get medical advices immediately.
First-aid measures after eye contact	: Rinse immediately inner side of eyelid with plenty of water more than 20 minutes. Remove the contact lenses if possible. Get medical advices. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth thoroughly with water and get medical attention immediately. Never give anything through mouth to a patient if he is unconscious. Turn a patient's head to the side for preventing suffocation by vomit.

5. Fire fighting measures

Suitable extinguishing media : Water mist, Alcohol-resistant foam, Dry chemical, Carbon dioxide (CO₂), Dry sand

Unsuitable extinguishing media : Nothing in particular

Fire hazard

Fire hazard : Under fire conditions, hazardous fumes or gas may be present.

Hazardous decomposition products in case of fire : The hazardous gasses such as carbon mono- and di-oxide and aldehyde group are generated at the Product's combustion.

Firefighting instructions

Firefighting instructions : Cut off ignition sources to a fire origin and fight a fire employing a suitable fire extinguishing agent.

Cool by water spray around the fire site to prevent the fire extension.

Personal protection (Emergency response)

Personal protection (Emergency response) : As gasses such as carbon dioxide, carbon monoxide, smoke are generated by high temperature at fire, wear a self-contained breathing apparatus, etc.

Protection during firefighting : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

Other information : Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding

environment. In the event of fire and/or explosion do not breathe fumes. Use water spray to cool unopened containers. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. Accidental release measures

Personal Precautions, Protective Equipment and Emergency Procedures

General measures : Clear off ignition sources and work from windward.
Wear suitable protective goggles, boots, gloves, body suits to avoid contact with droplet, etc and inhalation of mist, gas, etc.

For emergency responders

Protective equipment : Wear suitable protective tools such as goggles, boots, gloves, body suits and a self-contained breathing apparatus according to circumstances to avoid inhalation of and direct contact with materials in question.

Emergency procedures : Clear off all of ignition sources immediately.
Work from windward.
Stop release.

Environmental precautions

Environmental precautions : Take care that the released Products do not inflow into the water-courses nor dirty water flows out to the environment.

Methods and Equipment for Containment and Cleaning up

For containment : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).Keep in suitable, closed containers for disposal.

Methods for cleaning up : When the releasing materials are small, cover with dry sand, dirt, sawdust and/or the like, rake up with shovels or brooms and recover into the containers being stoppled tightly.
When the releasing materials are large, vacuum and recover with a pump, etc.

Prevention Measures for Secondary Accidents : Remove immediately all ignition source and prepare fire extinguish agents. Use safe tools which do not spark.

7. Handling and storage

Handling

Technical measures : Emergency showers and eye wash stations should be readily accessible.
Take precautionary measures against electrostatic discharge.

- Open flames prohibited.
- Precautions for safe handling : Comply with practice rules established by the Government.
- Prevents handling of incompatible substances or mixtures : Wear suitable personal protecting tools, if there are dangers of inhalation of vapor and mist or contact to skin or eye(s).
- Local and general ventilation : Handle the Product at the area installing local exhaust or whole ventilation facilities.

Storage

- Storage conditions : Store with a tight stopper at cool and dark places.
- Material used in packaging/containers : Keep oil tins dry because oil tins may form rust by wet with water and so on.
- Technical measures : Store the Product at a well ventilated place where is isolated from thermal sources and strong oxidizers.
- Incompatible materials : Strong oxidizers (perchlorates, nitrates, peroxides). Reactive metals. (sodium, calcium, zinc, etc.). Dehydrating agent.

8. Exposure controls / Personal protection equipment

Ethane-1,2-diol (107-21-1)	
Japan - Occupational Exposure Limits (Concentration standard value (MHLW))	
Local name	エチレングリコール # Ethylene glycol
OEL TWA	10 ppm
OEL STEL	50 ppm
Japan - Occupational Exposure Limits	
Exposure limits (ACGIH)	0 STEL C 100mg/m ³ (H)

- Appropriate engineering controls : Install sufficient general ventilators and local exhaust equipments, Express the place clearly where safety shower(s) and hand and eye washer(s) are equipped, Applied tools and equipments should be static charge prevention style explosion-proof.

Protective equipment

- Materials for protective clothing : Use personal protective equipment against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective equipment with the manufacturer.
- Respiratory protection : Use an air respirator at an emergency, It is needless under normal conditions at well ventilated place.
- Hand protection : Wear protective gloves.(Neoprene Nitrile rubber)
- Eye protection : goggles style protective glasses

Skin and body protection	: protective clothing, Choose appropriate protective clothes according to the concentration of the dangerous substance and the work circumstance.
Environmental exposure controls	: Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities. Avoid release to the environment. Refer to special instructions/ Safety data sheets.

9. Physical and chemical properties

Physical state	: Liquid
Colour	: Colorless~Light yellow,clear
Odour	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 125 °C (Cleveland open-cup test)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability	: No data available
Vapour pressure	: No data available
Relative vapour density at 20°C	: No data available
Relative density	: No data available
Density	: No data available
Relative gas density	: No data available
Solubility	: No data available
Partition coefficient n- octanol/water (Log Pow)	: No data available
Explosive limits (vol %)	: No data available
Explosive limits (g/m ³)	: No data available
Viscosity, kinematic	: No data available
Minimum ignition energy	: No data available
Particle size	: No data available

10. Stability and reactivity

Reactivity	:	No data available
Chemical stability	:	Prevent high temperature atmosphere, by which the degradation of the product is accelerated.
Possibility of hazardous reactions	:	In case of mix and contact with strong oxidizer, it may cause hazards such as fire or explosion.
Conditions to avoid	:	Heat. Fire
Incompatible materials	:	Reactive metals. (sodium,calcium, zinc, etc.). Strong oxidizer (perchlorates, nitrates, peroxides etc.). Peroxides. Dehydrating agents. Materials reacted with hydroxyl compounds.
Hazardous decomposition products	:	The hazardous gasses such as carbon mono- and di-oxide and aldehyde group are generated at the Product's combustion. Heating above 65 C in the presence of strong base can produce flammable hydrocarbon residue.

11. Toxicological information

Acute toxicity (oral)	:	(as a product)	No data available
Acute toxicity (dermal)	:	(as a product)	No data available
Acute toxicity (gas) - Description	:	(as a product)	No data available
Acute toxicity (vapour) - Description	:	(as a product)	No data available
Acute toxicity (dust, mist) – Description	:	(as a product)	No data available
Acute toxicity (mist) - Description	:	(as a product)	No data available
Skin corrosion/irritation	:	(as a product)	There are no available data about this product. There contain skin corrosion/irritation materials belonging to the following Category.Category 2: Ethylene glycol(25%) Concentration limits of Category 2 is $\geq 3\%$. So, this product is correspond to skin corrosion/irritation Category 2.
Serious eye damage/irritation	:	(as a product)	There are no available data about this product. There contain eye irritating materials belonging to the following Category. Category 1: Ethoxylated 2,4,7,9-tetramethyl-5-decyne-4,7-diol (75%) Concentration limits of Category 1 is $\geq 3\%$. So,this product is correspond to Serious eye damage /eye irritation Category 1 of GHS.

Respiratory sensitization	: (as a product)	No data available
Skin sensitization	: (as a product)	There are no available data about this product. There contain skin sensitisation materials belonging to the following Category. Category 1: 2,4,7,9-Tetramethyl-5-decyne-4,7-diol (75%) Concentration limits of Category 1 is $\geq 1.0\%$. So, this product is correspond to skin sensitisation Category 1 of GHS.
Germ cell mutagenicity	: (as a product)	No data available
Carcinogenicity	: (as a product)	No data available
Reproductive toxicity	: (as a product)	No data available
STOT-single exposure	: (as a product)	There are no available data about this product. There contain Specific target organ toxicity (single exposure) materials belonging to the following Category. Category 1: Ethylene glycol(25%) Concentration limits of Category 1 is $\geq 10\%$. So, this product is correspond to Specific target organ toxicity (single exposure) Category 1.
STOT-repeated exposure	: (as a product)	No data available
Aspiration hazard	: (as a product)	No data available

12. Ecological information

Ecotoxicity

Ecotoxicity	: (as a product)	No data available
Hazardous to the aquatic environment, short-term (acute)	: (as a product)	There are no available data about this product. There contain Hazardous to the aquatic environment (acute) materials belonging to the following Category. Category 3: 2,4,7,9-Tetramethyl-5-decyne-4,7-diol (75%). Concentration limits of Category 3 is $\geq 25\%$. So, this product is correspond to Hazardous to the aquatic environment (acute) Category 3 of GHS.

Hazardous to the aquatic environment, long-term (chronic)	: (as a product)	There are no available data about this product. There contain Hazardous to the aquatic environment (Chronic) materials belonging to the following Category. Category 3: 2,4,7,9-tetramethyl-5-decyne-4,7-diol (75%). Concentration limits of Category 3 is $\geq 25\%$. So, this product is correspond to Hazardous to the aquatic environment (Chronic) Category 3 of GHS.
Other information	: It should not be allowed for the product to be run into drains, water courses or the soil.	

Persistence and degradability

Persistence and degradability	: (as a product)	No data available
Biochemical oxygen demand (BOD)	: (as a product)	No data available
Chemical oxygen demand (COD)	: (as a product)	No data available

Bioaccumulative potential

Bioaccumulative potential	: (as a product)	No data available
Partition coefficient n-octanol/water (Log Pow)	: (as a product)	No data available

Mobility in soil

Mobility in soil	: (as a product)	No data available
Partition coefficient n-octanol/water (Log Pow)	: (as a product)	No data available
Ecology - soil	: (as a product)	No data available

Hazardous to the ozone layer

Ozone	: (as a product)	No data available
Other adverse effects	: No additional information available	

13. Disposal considerations

Ecological waste information	: Farm out to professional disposal treating traders in compliance with requirements of the nation and local governments.
Contaminated container and packaging	: Farm out disposal of the contents and packaging materials to professional disposal treating traders in compliance with requirements of the nation and local governments.

In case of disposal of empty container, dispose after complete removal in the container.

14. Transport information

International Regulations

Transport by sea(IMDG)

UN-No. (IMDG)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Packing group (IMDG)	: Not applicable
Transport hazard class(es) (IMDG)	: Not applicable

Air transport(IATA)

UN-No. (IATA)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Packing group (IATA)	: Not applicable
Transport hazard class(es) (IATA)	: Not applicable

Regulations in Japan

Other information	: At transportation, make sure of no leakage of packings, load the products without broken bags, falling, injury, etc, and prevent load collapses surely.
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15. Regulatory information

REACH SVHC	: No SVHC substances exceeding the threshold level are contained.
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16. Other information

Data sources	: Ref. 1."Safety Data Sheet" by Raw Material Manufacturers. 2.GHS Sixth Revised Edition. 3.NITE GHS Results of the Classification.
Other information	: The Products was developed for general industries' use. When applying to specific uses, it is hoped to confirm its safety by yourselves prior to the use. The description of this SDS is based upon materials, information and data which can be procured at present. However, we do not warrant any guarantee regarding the contents, physical and chemical properties, hazards and the like.

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