

[DAPHNE OPEN GEAR OIL 2S]

SAFETY DATA SHEET

1. Identification

Product identifier: **DAPHNE OPEN GEAR OIL 2S**Recommended use of the chemical and restrictions on use:
Gear Compound

Supplier

Idemitsu Kosan Co., Ltd.
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Code 32510152

2. Hazards identification

Classification of this product in accordance with 29 CFR 1910.1200 (OSHA HazCom 2012).

GHS Classification

Physical Hazards

Flammable liquids : Category 3

Health Hazards

Skin corrosion/irritation : Category 3

Toxic to reproduction : Category 1B

Specific target organ toxicity (Single exposure)

: Category 3(respiratory tract irritation, narcotic effects)

Specific target organ toxicity (Repeated exposure)

: Category 2(liver)

Environment Hazards

Hazardous to the aquatic environment (Acute hazard)

: Category Acute 2

Hazardous to the aquatic environment (Long-term hazard)

: Category Chronic 2

OSHA Defined Hazards: (Pyrophoric gas, Simple asphyxiant, Combustible dust)

: Classification not possible

GHS Labeling Elements

Symbol:



Signal Word: Danger

Hazard Statements:

- (H226) Flammable liquid and vapor
- (H316) Causes mild skin irritation
- (H335) May cause respiratory irritation(respiratory tract)
- (H336) May cause drowsiness or dizziness
- (H360) May damage fertility or the unborn child
- (H373) May cause damage to organs(liver)
- (H401) Toxic to aquatic life
- (H411) Toxic to aquatic life with long lasting effects

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Precautionary Statements

Prevention:

- (P201) Obtain special instructions before use.
- (P202) Do not handle until all safety precautions have been read and understood.
- (P210) Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- (P233) Keep container tightly closed.
- (P240) Ground/bond container and receiving equipment.
- (P241) Use explosion-proof electrical/ventilating/lighting equipment.
- (P242) Use only non-sparking tools.
- (P243) Take precautionary measures against static discharge.
- (P260) Do not breathe dust/fume/gas/mist/vapors/spray.
- (P271) Use only outdoors or in a well-ventilated area.
- (P273) Avoid release to the environment.
- (P280) Wear protective gloves/eye protection/face protection.
- (P281) Wear protective gloves/protective clothing/eye protection/face protection.

Response:

- (P303+P361+P353)
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- (P304+P340)
If inhaled: Remove person to fresh air and keep comfortable for breathing.
- (P308+P313)
If exposed or concerned: Get medical advice/attention.
- (P312) Call a poison center/doctor if you feel unwell.
- (P314) Get medical advice/attention if you feel unwell.
- (P332+P313)
If skin irritation occurs: Get medical advice/attention.
- (P370+P378)
In case of fire: Use dry chemical, water fog, CO2, foam, sand or earth to extinguish.
- (P391) Collect spillage.

Storage:

- (P403+P233)
Store in a well-ventilated place. Keep container tightly closed.
- (P403+P235)
Store in a well-ventilated place. Keep cool.
- (P405) Store locked up.

Disposal:

- (P501) Disposal should be in accordance with applicable regional, national and local laws and regulations.

Hazards Not Otherwise Classified(HNOC)

- Not applicable.

Other Information

- 1-3% of the mixture consists of ingredients of unknown acute toxicity.

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3. Composition/ information on ingredients

Formula: Not applicable.

Components:

Component	CAS No.	Contents(%)
Base oil(Asphalt, refined mineral oil)	Trade secret	65-75
solvent(Xylenes (o-, m-, p-isomers), 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, mineral spirit)	Trade secret	20-30
Additive(s)(Containing zinc compound(s))	Trade secret	< 5

The specific chemical identity of composition has been withheld as a trade secret.

See Section 8 for exposure limits (if applicable).

See Section 15 for legal controlled substance (if applicable).

4. First-aid measures

Eye Contact:

- Immediately flush with water for at least 15 minutes. Get medical attention.

Skin Contact:

- Thoroughly remove with cloth or paper and wash carefully with soap and water.

Inhalation:

- Remove the victim from the contamination to fresh air. Cover the victim in a blanket to keep warm and quiet. Consult a physician.

Ingestion:

- Do not induce vomiting. Immediate consult a physician.

Symptoms/effects, acute and delayed:

- No data available.

Indication of immediate medical attention and special treatment needed:

- Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

5. Fire-fighting measures

Extinguishing Media:

- Foam, dry chemical, CO2, dry sand.

Unsuitable Extinguishing Media:

- Do not use water. Water can be dangerous possibly leading to fire spread.

Specific Hazards with Regard to Fire-fighting:

- Thermal decomposition and combustion may produce carbon monoxide and/or carbon dioxide.

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Specific Methods of Fire-fighting:

- In the early stages of fire, use dry chemical, CO₂, dry sand, etc. fire-extinguisher.
- In case of massive fire, use foam fire-extinguisher to shut off the air supply.
- Get all persons to safety. Authorized personnel only at the fire site.

Special protective equipment and precautions for fire-fighters:

- Fire-fighters should wear protective equipment.
- Start fire fighting from the windward side.

6. Accidental release measures**Personal precautions, protective equipment, and emergency procedures:**

- Wear protective equipment during cleanup work.

Environmental Precautions:

- Prevent spills from entering sewers or waterway.

Methods for Clean-Up:

- For small spills, absorb with inert material (e.g., dry sand, sawdust or waste cloth), then place in a chemical waste container with a cover for disposal.
- For large spills, dike to keep spillage in a safe place for later disposal.

Prevention of Secondary Hazards:

- Immediately shut off all sources of ignition.

7. Handling and storage**Handling****Technical Measures:**

- When vapor or mist exhales, install an apparatus to close the vapor/mist source, local ventilation equipment, etc.

Precautions:

- Contact with eye may cause irritation. Use protective glasses to avoid contact with eyes.
- Contact with skin may cause irritation. Use protective gloves to avoid skin contact.
- Inhalation of mist/vapor may cause mucosal, respiratory and internal organ damage. Avoid inhalation of mist/vapor by using breathing apparatus, etc.
- Solvent fume reacts with air to form an explosive mixture. Keep fire away and take safety measures such as ventilation and explosion protection.
- May catch fire. Handle in a well-ventilated place and keep fire away.
- Do not swallow. (Drinking the product may cause diarrhea and vomiting.)
- Close container after each use.

Precautions for Safe Handling:

- Wear gloves to avoid injury on hands at opening the container.

Storage**Appropriate Storage Conditions:**

- Keep container closed to protect from dust/water ingress after use.
- Store in a cool, dry place, away from direct sunlight, heat source and fire.
- Keep out of reach of children.

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Safe Packaging Materials:

- Do not expose empty container to pressure.
- Do not weld, heat, drill or cut container. Residue ignition and explosion hazards.

8. Exposure controls/personal protection

Exposure Guidelines

OSHA:

- Oil mist, mineral: TWA 5mg/m³
- Xylenes (o-, m-, p-isomers): TWA 100mg/m³

ACGIH:

- Xylene: TWA 100ppm
- Mineral oil: TWA 5mg/m³
- 1,2,4-Trimethylbenzene: TWA 25ppm
- 1,3,5-Trimethylbenzene: TWA 25ppm
- Mineral spirit: TWA 100ppm

NIOSH:

- 1,2,4-Trimethylbenzene: TWA 25ppm
- 1,3,5-Trimethylbenzene: TWA 25ppm
- Oil mist (mineral): TWA 5mg/m³
- Xylene: TWA 100ppm

Engineering Controls:

- When vapor or mist exhales, install an apparatus to close the vapor/mist source or ventilation equipment.

Individual protection measures, such as personal protective equipment:

- Wear protective gloves/protective clothing/eye protection /face protection.

Protective Equipment

Respiratory Protection:

- Wear a gas mask for organic gas when needed (not necessary under normal conditions).

Hand Protection:

- Wear oil-resistant protective gloves in case of prolonged and/or repeated skin contact.

Eye Protection:

- Wear chemical safety goggles whenever the product splashes.

Skin and Body Protection:

- Wear long-sleeved oil-resistant working clothes whenever handling for many hours and/or getting wet. Immediately take off the wet clothes and thoroughly wash them before reusing.

9. Physical and chemical properties

Appearance

Form	: Liquid
Color	: Black
Odor	: Slight odor
Odor threshold	: No data available.
pH	: No data available.
Melting point	: No data available.

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Initial boiling point and boiling range	: No data available.
Flash point	: 48°C (PM)
Evaporation rate	: No data available.
Flammability	: No data available.
Upper/lower flammability or explosive limits	: No data available.
Vapor pressure	: No data available.
Solubility in water	: Insoluble in water
Vapor density	: No data available.
Density	: 0.942 (25°C) g/cm ³
Partition coefficient: n-octanol/water	: No data available.
Auto-ignition temperature	: No data available.
Decomposition temperature	: No data available.
Viscosity	: 440 mm ² /s (40°C)
Dropping point	: No data available.

10. Stability and reactivity

Reactivity, Conditions to avoid:

- Avoid contact with strong oxidant.

Chemical Stability:

- Product is stable under normal conditions.

Possibility of Hazardous Reactions:

- Not available.

Materials to avoid:

- Strong oxidizers.

Hazardous Decomposition Products:

- This material is expected to be stable under normal conditions of use.

11. Toxicological information

Information on the likely routes of exposure

Skin Contact: May cause an allergic skin reaction.

Delayed and immediate effects and also chronic effects from short- and long-term exposure

Acute toxicity - Oral: No data available.

- Refined mineral oil LD50 Acute oral >5 g/kg (rat)

Acute toxicity - Dermal: No data available.

Acute toxicity - Inhalation (Gases): No data available.

Acute toxicity - Inhalation (Vapors): No data available.

Acute toxicity - Inhalation (Dusts and mists): No data available.

Chronic toxicity: No data available.

Skin corrosion/irritation:

- Classified under Category 3 based on the category of each ingredient or the product properties.

Eye damage/irritation: No data available.

Sensitization - Respiratory: No data available.

Sensitization - Skin: No data available.

Germ cell mutagenicity: No data available.

Carcinogenicity: No data available.

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Toxic to reproduction:

- Classified under Category 1B based on the category of each ingredient or the product properties.

Effects on or via lactation: No data available.

Specific target organ toxicity (Single exposure):

- Classified under Category 3(respiratory tract irritation) (respiratory tract), Category 3(narcotic effects) based on the category of each ingredient or the product properties.

Specific target organ toxicity (Repeated exposure):

- Classified under Category 2(liver) based on the category of each ingredient or the product properties.

Aspiration hazard: No data available.

Other Toxicity Information

NTP Report on Carcinogens: Not listed.

IARC Monographs: Not listed.

12. Ecological information

Ecotoxicity

Hazardous to the aquatic environment (Acute hazard):

- Classified under Category Acute 2 based on the category of each ingredient or the product properties.

Hazardous to the aquatic environment (Long-term hazard):

- Classified under Category Chronic 2 based on the category of each ingredient or the product properties.

Persistence and Degradability: No data available.

Bioaccumulative potential: No data available.

Mobility in soil: No data available.

Hazardous to the ozone layer: No data available.

13. Disposal considerations

Waste Residues:

- Properly dispose of in accordance with any relevant regulations.
- Properly dispose of by a licensed waste disposer.
- For in-house incineration disposal, ensure exhaust gas treatment (washing treatment, etc.) to prevent air pollution from sulfur oxides.
- No dumping.
- When burning, be sure to do so on someone's watch in a safe place and in the way that burning and/or explosion will never pose a potential hazard.

Contaminated Packaging:

- Dispose of container after completely removing the contents.

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14. Transport information

DOT Hazardous Materials: Yes

Hazardous materials descriptions and proper shipping names:

Flammable liquids, n.o.s.

Hazard class or Division: 3

Identification Number: UN1993

Packing Group: III

Label Required: 3

UN Transport of Dangerous Goods

UN Number: 1993

UN Proper Shipping Name: FLAMMABLE LIQUID, N.O.S.

Transport Hazard Class: 3

Packing Group: III

Land(RID/ADR)

Class: 3

Packing Group: III

UN Number: 1993

Name: FLAMMABLE LIQUID, N.O.S.

Sea(IMO/IMDG)

Class: 3

Packing Group: III

UN Number: 1993

Proper Shipping Name: FLAMMABLE LIQUID, N.O.S.

Marine Pollutant: Not applicable.

Air(ICAO/IATA)

Class: 3

Packing Group: III

UN Number: 1993

Proper Shipping Name: Flammable liquid, n.o.s.

Specific Precautionary Transport Measures and Conditions:

- Combustible liquid. Keep fire away.
- Handle with care to prevent container damage.
- Ensure proper packaging before shipping to avoid load shifting and falling accident.

15. Regulatory information

Regulatory information with regard to this product in your country or your region should be examined by your own responsibility.

US TSCA (Toxic Substances Control Act)

All components of this product are listed on the TSCA inventory of Chemical Substances.

US OSHA (Occupational Safety and Health Act):

This product contains substances listed in OSHA 29 CFR 1910.

subpart Z:

Name	Threshold(%)	CAS No.	Contents(%)
Xylenes (o-, m-, p-isomers)	>0.1	1330-20-7	0.1-0.5

US CERCLA

(Comprehensive Environmental Release, Compensation & Liability Act):

CERCLA Hazardous Substances:

Name	Threshold(%)	CAS No.	Contents(%)
Benzene, dimethyl-	>0.1	1330-20-7	0.1-0.5
Zinc compound(s)	>0.1	Trade secret	0.1-0.5

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US SARA (Superfund Amendment & Reauthorization Act) Title III:
SARA Extremely Hazardous Substances (302): None

SARA Hazard Categories (311/312): None

SARA Toxic Release Inventory (TRI) (313):

Name	Threshold(%)	CAS No.	Contents(%)
1,2,4-Trimethylbenzene	>0.1	95-63-6	0.5-1.0
Xylene (mixed isomers)	>0.1	1330-20-7	0.1-0.5
Zinc compound(s)	>0.1	Trade secret	0.1-0.5

PROPOSITION 65 List: None

16. Other Information

NFPA

Health hazards: 1
Flammability: 2
Instability: 0
Special Hazard: -

Original date: Oct/31/2014

Revision date: Mar/01/2016

References

- 1.OSHA Hazard Communication Standard 29 CFR 1910.1200
- 2.Thresholds limit values for chemical substances and physical agents and biological exposure indices, ACGIH(2012)
- 3.US NIOSH Pocket Guide to Chemical Hazards, 2010
- 4.IARC MONOGRAPHS ON THE EVALUATION OF THE CARCINOGENIC RISK OF CHEMICALS TO HUMANS VOLUME 33
- 5.Report on Carcinogens Twelfth Edition 2011, NTP
- 6.EU CLP Regulation (EC No 1272/2008 ANNEX VI Harmonised classification and labelling for certain hazardous substances)
- 7.Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Third revised edition.

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Disclaimer

This SDS is an addition and complementary document beside the technical data sheet. The information is based upon our knowledge about the product at the date of edition.

Since we cannot anticipate or control the different conditions under which these information or our product may be used, we make no guarantee that recommendations will be adequate for all individuals and situations.

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