

Version 1.0

Issue date: 08/08/2016

Revision date: 08/08/2016

CSSS-TCO-010-120544

SDS Record Number:

Section 1 Identification of the substance/mixture and of the company/undertaking**Product identifier:**

Identification on the label/Trade name: Sinopec FD-2 Engine Coolant

Additional identification: 60112248

Identification of the product: See section 3

Index Number: Not available

REACH registration No.: Not available

Relevant identified uses of the substance and uses advised against:**Identified uses:**

Used as heat transfer medium in engine cooling system.

Uses advised against:

Not available.

Details of the supplier of the safety data sheet:

Supplier(Manufacturer): SINOPEC LUBRICANT CO., LTD.

Address: No. 6 Anning Zhuang West Road, Haidian District, Beijing, P.R.China

Contact person(E-mail): csc.lube@sinopec.com

Telephone: 86-400-810-9886

Fax: 86-10-82410856

Emergency telephone Number:

86-400-810-9886 Only available during office hours (8:30a.m.-17:30p.m. Beijing Time Zone)

Available outside office hours? YES NO **Section 2 Hazards Identification****Classification of the substance/mixture:****GHS Classification** Not classified**label elements:****Hazard Pictograms:** No hazard pictogram is used.**Signal Word(S):** No signal word is used.**Hazard Statement:** Not applicable.**Precautionary statement:** Not applicable.**Other hazards:**

Not available.

Section 3 Composition/information on ingredients**Substance/Mixture:** Mixture

Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Concentration
Ethylene Glycol	N/A	107-21-1	203-473-3	40-60%
Water	N/A	7732-18-5	231-791-2	40-60%
Additive	N/A	Mixture	Mixture	<5%

Section 4 First aid measures**Description of first aid measures:**

In all cases of doubt, or when symptoms persist, seek medical attention.

In case of inhalation:

Move exposed person to fresh air and provide oxygen. Get medical attention if coughing or respiratory discomfort occurs.

In case of skin contact:

As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use water. Get medical attention.

In case of eyes contact:

Wash eyes with water for 15 minutes. If irritation occurs, get medical attention.

In case of ingestion:

Induce vomiting, and first aid measures are required.

Most important symptoms and effects, both acute and delayed:

The product is not classified as harmful to human health effect.

Indication of any immediate medical attention and special treatment needed:

If skin irritation or rash occurs, get medical advice/attention.

Section 5 Fire-Fighting measures**Extinguishing media:****Suitable extinguishing media:**

Spray, carbon dioxide, foam, dry chemical and water fog.

Unsuitable extinguishing media:

Water.

Special hazards arising from the substance or mixture

This product is not hazardous product. It may be to combustion when exposure to high temperature or fire. Fumes, smoke, carbon monoxide, oxides, aldehydes and other decomposition products, in the case of incomplete combustion.

Special fire fighting methods and special protective actions for fire-fighters:

Must wear breathing apparatus when close to the ignition point in confined space.

Section 6 Accidental release measures**Personal precautions, protective equipment and emergency procedures:****For non-emergency personnel:**

Cut off the source of fire, immediately contact the workers, and keep other person stay in safe areas. Wear appropriate personal protective equipment when cleaning up spills.

For emergency responders:

Wear an appropriate NIOSH/MSHA approved respirator if dust is generated.

Environmental Precautions:

Do not allow material to be released to the environment without proper

governmental permits.

Methods for Containment and Cleaning up: FOR LARGE SPILLS: Remove with vacuum truck or pump to storage/salvage vessels.
FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

Reference to other sections: See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

Additional information: Not applicable.

Section 7 Handling and storage

Precautions for safe handling:

Protective measures: Avoid contact with skin and eyes. Normal measures for preventive fire protection.

Advice on general occupational hygiene: Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

Conditions for safe storage, including any incompatibilities: Do not store in open or unlabeled containers. Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures. Suggest do not to be stored in the galvanized container.

Specific end use(s): Not applicable.

Section 8 Exposure Controls/Personal Protection

Occupational exposure limits

Singapore. PELs. (Workplace Safety and Health (Permissible Exposure Levels of Toxic Substances) Order)

Components	Type	Value
Ethylene Glycol(CAS107-21-1)	STEL	127 mg/m3 50 ppm

Control parameters/Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Ethylene Glycol(CAS107-21-1)	Ceiling	100 mg/m3	Aerosol

Exposure controls:

Appropriate engineering controls: Use in a well-ventilated area.

Individual protection measures, such as personal protective equipment:

Eye/face protection: Chemical goggles, or safety glasses with side shields.

Hand protection: Use protective gloves which are chemically resistant to this material.

Body protection: Use protective clothing and shoes which are chemically resistant to this material.

Respiratory protection: If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, an approved respirator must be worn.

Thermal hazards: Wear suitable protective clothing to prevent heat.

Environmental exposure controls: Avoid discharge into the environment.
According to local regulations, Federal and official regulations.

Section 9 Physical and chemical properties

Information on basic physical and chemical properties:

Appearance:	Distinctive
Colour:	Not available
Odour:	No odor
Odour threshold:	Not available
pH:	7.5~11.0
Melting point/range (°C):	Not available
Freezing point/range (°C):	-36.0°C (typical data)
Boiling point/range (°C):	109.0°C (typical data)
Flash point (°C):	Not available
Evaporation rate:	Not available
Flammability limit - lower (%):	Not available
Flammability (solid, gas):	Not available
Ignition temperature (°C):	Not available
Upper/lower flammability/explosive limits:	Not available
Vapour pressure (20°C):	Not available
Vapour density:	Not available
Density:	1071 kg/ m3(typical data)
Bulk density (kg/m³):	Not available
Water solubility (g/l):	Soluble in water
n-Octanol/Water (log Po/w):	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity, dynamic (mPa.s):	Not available
Explosive properties:	Not available
Oxidising properties:	Not available
Molecular Formula:	Not available
Molecular Weight:	Not available
Other information:	
Fat solubility(solvent– oil to be specified) etc:	Not available
Surface tension:	Not available
Dissociation constant in water(pKa):	Not available
Oxidation-reduction Potential:	Not available
Specific gravity:	Not available

Section 10 Stability and reactivity

Reactivity:	The substance is stable under normal storage and handling conditions.
Chemical stability:	Stable at room temperature in closed containers under normal storage and handling conditions.
Possibility of hazardous reactions:	May react with strong oxidizing agents.
Conditions to avoid:	Incompatible materials. Extreme heat and high energy sources of ignition.
Incompatible materials:	Strong oxidants.
Hazardous decomposition products:	Fumes, smoke, carbon monoxide, oxides, aldehydes and other decomposition

products, in the case of incomplete combustion.

Section 11 Toxicological information

Toxicokinetics, metabolism and distribution:

Non-human toxicological data: Not available

Information on toxicological effects:

Acute toxicity:

LD50(Oral, Mouse): >2000mg/kg

LD50(Dermal, Rabbit): Not available

LC50(Inhalation, Rat): Not available

Acute toxicity:

Ethylene Glycol(CAS#107-21-1)

LD50(Oral, Rat): 7 712 mg/kg bw

LD50(Dermal, Rabbit): Not available

LC50(Inhalation, Rat): Not available

Skin corrosion/Irritation: Not classified

Serious eye damage/irritation: Not classified

Respiratory or skin sensitization: Not classified

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: Not classified

STOT- single exposure: Not classified

STOT-repeated exposure: Not classified

Aspiration hazard:: Not classified

Section 12 Ecological information

Toxicity:

Ethylene Glycol(CAS#107-21-1)

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	72 860 mg/L	96h	Fish	OECD 203	N/A	N/A
EC50	> 100 mg/L	48h	Daphnia	OECD 202	N/A	N/A
EC50	N/A	72h	Algae	OECD 201	N/A	N/A

Persistence and degradability: This product is expected to be inherently biodegradable

Bioaccumulative potential: This product has the water solubility; but bioavailability and bioaccumulation to aquatic organisms is minimal.

Mobility in soil: When released into the environment, adsorption to sediment and soil will be the predominant behavior.

Results of PBT&vPvB assessment: Not available.

Other adverse effects: Not available.

Section 13 Disposal considerations

Waste treatment methods:

The material should be disposed of by incineration in a chemical incinerator in compliance with national and regional requirements.

Product / Packaging disposal:

If empty container retains product residues, all label precautions must be observed.
Return for reuse or dispose according to national or local regulations.

Section 14 Transport information			
	Land transport(ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	Not regulated	Not regulated	Not regulated
UN Proper shipping name	Not regulated	Not regulated	Not regulated
Transport hazard Class	Not regulated	Not regulated	Not regulated
Packaging group	Not regulated	Not regulated	Not regulated
Environmental hazards	No	No	No
Special precautions for user	See section 2	See section 2	See section 2
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not regulated	Not regulated	Not regulated

Section 15 Regulation information**Safety, health and environmental regulations specific for the product in question****Controlled Narcotic Drugs (Misuse of Drugs Act, First Schedule, Part I, II & III)**

Not regulated.

Controlled Specified Drugs (Misuse of Drugs Act, Fourth Schedule)

Not regulated.

Prior Informed Consent (PIC) Substances (Environment Protection and Management Act, 2nd Schedule, Part 1, Jul. 1, 2013)

Not regulated.

Chemical Weapons Prohibition (Act)

Not applicable.

Environmental Protection and Management (Hazardous Substances) Regulations

Not applicable.

Environmental Public Health Act

Not applicable.

International regulations**Montreal Protocol**

Not applicable.

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Section 16 Other information

Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

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