Material Safety Data Sheet

MSDS

Chemical name: diesel pour point depressant Dalian Richfortune Chemicals Co.,Ltd Basis: GB/T 16483, GB/T 17159 SDS number: BJXY-001 Original date: May 15, 2008 Revision date: October 20, 2015 Version: Second Edition

The first part: chemical and enterprise logo

Diesel oil pour point depressant Chemical English Name: Diesel oil pour point depressant Molecular formula: (CH2-CH) x- (CH2-CH2)y OCOCH3 Dalian Richfortune Chemicals Co.,Ltd Address: 12A-11 Yangguang Shuma Building, 596 Huang Pu Road, DaLian, Liaoning 116023, P.R. China Tel: 0411-84820922 Email address:wenyuliu@richfortunechem.com Fax: 0411-84820922 Enterprise emergency call: 13795147913 Main application: it can reduce the freezing point and cold filter point of diesel oil, Improve the flowability of diesel oil.

The second part: an overview of the danger

Summary of emergency situations: colorless or orange oily liquid with a slight aromatic odor that can be burned with open flame and high temperature.

GHS Classification of dangerous substances : combustible liquid category 4

Pictographic figures: no need

Warning words: warning

Hazard Description: combustible liquid, in case of open flame and high temperature can be burned, resulting in environmental hazards.

Prevention instructions:

The preventive measures:

- keep away from fire sources, sparks, open flames, hot surfaces, use tools that do not produce sparks; take precautions against static electricity;

Use explosion-proof electrical appliances, ventilation, lighting and other equipment;

Wear antistatic costume, wear protective gloves and protective goggles.

- avoid inhaling steam (or fog).

- wear respiratory protective devices when the air concentration is exceeded.

---- no eating, drinking, smoking in the workplace.

- clean the body contact area after the operation, and the contaminated clothing cannot be taken out of the workplace

---- no eating, drinking, smoking in the workplace.

The accident response:

- if inhaled or inhaled toxic symptoms, immediately move the patient into the fresh air to keep the airway open.

- skin contact, a slight effect on the skin, it is recommended to immediately remove clothing, with plenty of soap and water wash.

- enter the eyes, rinse with plenty of water for 15 minutes, and to turn over the eyelids, such as stimulation, should seek medical treatment.

- eat, do not rush to spit, or will be poisoned by inhalation, looking for a doctor.

- collect leakage.

- fire, use water spray, foam, dry powder, carbon dioxide fire; the power supply is cut off, as far as possible the containers from fire to open.

- safe storage:

Store in a cool, ventilated warehouse, keep away from fire and fire source, prevent direct sunlight and separate from strong oxidizer.

The waste disposal:

- the product or its container is disposed by incineration.

Physical and chemical hazards: mixed with the air, heating can form explosive mixture, in case of fire high heat caused by combustion explosion. High temperature high temperature, increased pressure within the container, there is danger of explosion and cracking.

Health hazards: long-term exposure to their vapors (or fog) can cause headaches, dizziness, fatigue, lack of concentration, breathing and heart rate acceleration, ataxia.

Environmental hazards: long-term exposure to aquatic organisms, they will be damaged, there is a slight impact on the environment.

The third part: Composition / composition information

Material mixture		
Hazardous chemicals component volume%	CAS	NO.
Ethylene vinyl acetate polymer	50	24937-78-8
Heavy aromatics	50	95-93-2

The fourth part: first aid measures

First aid:

Inhalation: quickly from the scene to fresh air. Maintain airway patency. Such as breathe with difficult oxygen therapy . If the breathing stops, immediately perform artificial respiration. Medical treatment.

Skin contact: remove contaminated clothing, wash thoroughly with soap and water. discomfort for doctor.

Eye contact: separate eyelids, rinse with flowing water or saline, if there is discomfort, seek medical treatment.

Ingestion: mouthwash, drinking, no vomiting. medical treatment.

The fifth part: fire protection measures

Fire extinguishing methods and extinguishing agents: fog water, foam extinguishing agent, carbon dioxide fire extinguisher, dry powder fire extinguisher, avoid the use of DC water fire

Hazardous characteristics: flammable, mixed with air at high temperatures and high temperatures to form explosive mixtures.

Special hazard:

Harmful combustion products are carbon monoxide, carbon dioxide.

In the scene, the container pressure cracking and explosion.

Fire precautions and measures:

Firefighters must wear positive pressure self-contained breathing apparatus, wearing a full range of fire services, in the wind to the fire.

As far as possible will have empty containers from fire.

Keep fire cooling container until the end of fire extinguishing.

The container is placed in the fire pit if discoloration or from the safety relief of voice, must leave immediately.

Isolation of the accident scene, prohibit irrelevant personnel into.

Receiving and processing system, to prevent environmental pollution.

The sixth part: Leakage Emergency Treatment

Protective measures, protective equipment and emergency handling procedures for operators:

It is recommended that emergency personnel wear a portable respirator, wear protective clothing and wear rubber gloves. No contact or leakage.

The use of equipment should be grounded all the homework. As far as possible to cut off the source of leakage, eliminate all ignition sources.

According to the designated warning area affects the flow and vapor diffusion, not from crosswind, windward evacuation data security zone. The rapid evacuation of personnel to the upper reaches of the spill area, and isolation, strict access with restrictions, cut off the fire source and right ventilation.

Environmental protection measures: build a dike or accident into the liquid pool containing a large number of wastewater produced, to prevent leakage of surface water, groundwater, water drain.

Method for collecting and clearing leakage chemical and disposal material used:

Small leakage: as far as possible the leakage of liquid collected in a closed container, with sand or other inert material absorption and transfer to a safe place.

A large leak: build cofferdam or dig a hole. Cover with foam to reduce its spread and volatilization. Pump transfer to tank exclusive collector, place the disposal of recycling or shipped to the waste disposal.

Preventive measures to prevent secondary hazards: do not let the spill into the sewer. prevent emissions to the surrounding environment.

The seventh part: handling and storage

Operational matters needing attention:

Closely operate. Operators must undergo special training, strict compliance with operating procedures. The operator is advised to wear a self suction filter gas mask (full cover) to penetrate the gas type gas protective clothing and wear chemical gloves. Keep away from fire and heat source, smoking is prohibited in the workplace. Use explosion-proof ventilation systems and equipment to prevent leakage to the workplace. Avoid contact with oxidizing agents, acids and bases. When moving to light light unloading, prevent damage to packaging and containers. Equipped with corresponding various fire-fighting equipment and emergency treatment

equipment for leakage t. Empty containers may contain harmful substances. Wash your hands after use and keep them in the workplace.

Storage note:

Sealed, keep indoor ventilation, away from fire, heat, light source. Avoid contact with air. Temperature should not exceed 40 degrees. using explosion-proof lighting, ventilation facilities, electrostatic grounding. It is forbidden to use mechanical equipment and tools which are easy to produce sparks. The storage area shall be equipped with fire- fighting equipment and emergency treatment facilities and suitable materials.

The eighth part: contact control / individual control

Occupational exposure limit: no data.

Monitoring method: no data.

Biological limit: no data.

Monitoring method: no data. Engineering control methods: closed production process, enhanced ventilation.

Respiratory protection: it is recommended to wear a filter mask, emergency rescue or evacuation, should wear a respirator.

Hand protection: wear rubber protective gloves. Eye protection: wear chemical safety goggles. Skin and body protection: wear rubber oil resistant gloves, through the gas type clothing.

Special protection measures: according to industrial hygiene and safety rules. Wash your hands before and at the end of your work.

The ninth part: physical and chemical characteristics

Status: liquid Appearance and properties: colorless or yellow viscous oil liquid Relative density (water =1):0.9 Boiling point (c):180-270 Relative vapour density (air =1): no data Saturated vapor pressure (kPa): no data Heat of combustion (Kj/mol): no data Critical temperature (c): no data Critical pressure (MPa): no data Octanol / water partition coefficient: no data Flash point (closed cup): 63 degrees Ignition temperature (c):188 The explosion limit (V/V) [%]: no data The explosion limit (V/V) [%]: no data The freezing point (c): = 20Kinematic viscosity mm2/s:40-200 Solubility in water: 0.00001 g/L Odor domain values: no data Polymerization hazards: None

Flammable: Combustible

The tenth part: stability and reactivity

Stability: stable under normal conditions

Avoid contact conditions: high temperature, open flame.

No match: concentrated sulfuric acid, concentrated nitric acid and other strong oxidizing agent. Risk response: strong reaction with strong oxidizing agent at high temperature and high temperature.

Hazardous decomposition products: carbon monoxide, carbon dioxide

The eleventh part: toxicological information

Acute toxicity (LD50): no relevant details LC50: no relevant details Skin irritation or corrosion: no relevant details Eye irritation or corrosion: no relevant details Respiratory or skin allergies: no relevant details Germ cell mutation: no relevant details Carcinogenicity: International Cancer Research Center (IARC) is not included in carcinogens Reproductive toxicity: no relevant details Specific target organ system toxicity - single contact: no relevant details Specific target organ system toxicity - repeated contact: no relevant details Inhalation hazard: no relevant details Toxicity dynamics, metabolism and distribution information: no relevant details Other: no relevant details

The twelfth part: ecological data

Ecotoxicity: no relevant details Persistence and degradability: no relevant details Potential bioaccumulation: no relevant details Mobility in soils: no relevant details Other harmful effects: no relevant details.

The thirteenth part: waste disposal

Waste disposal method: according to the requirements of national and local laws and regulations. Or contact the manufacturer or manufacturer to confirm the disposal method. disposed by incineration.

Handling methods of contaminated containers and packaging: recycling, or refer to national or local regulations to destroy or discard.

Waste precautions: waste disposal should contact the manufacturer, with the actual situation to develop specific safety measures to prevent accidents

The fourteenth part: transportation information

United Nations dangerous goods code (UN): United Nations Transport Name: heavy aromatics United Nations hazard classification: flammable liquids Packing mark: general chemical, flammable. Packing type: class. Packing method: 200L small open drums or plastic drums, Marine pollutants: no Transportation matters needing attention:

Transport should be installed in strict accordance with the "rules" in the ordinary chemical transport cargo loading table. Before shipment, we should first check whether the packaging container is complete and sealed, and ensure that the container does not leak, do not collapse, not damage. Prohibited mixed with oxidants, edible chemicals. Transport vehicles should be equipped with the corresponding varieties and quantities of fire equipment and emergency treatment equipment for leakage. During the transport should be anti blazing, rain, high temperature.

The fifteenth part: regulatory information

Regulatory information:

The following laws and regulations and standards for the safe use of chemicals, storage, transportation, loading and unloading, classification and marking and other aspects of the relevant provisions:

Guidelines for the preparation of chemical safety technical specifications (GB/T17519-2013) Regulations on the safety administration of hazardous chemicals (No. 344th of the State Council) The "list of dangerous goods" (GB12268-2005)

"Classification and code of dangerous goods" (GB6944-2005)

Provisions on the compilation of technical specifications for hazardous chemicals safety (GB/T16483-2008)

Classification and marking of commonly used dangerous chemicals (GB13690-92)

The sixteenth part: other information

Latest revision date: October 20, 2015

Revised description: modify every three years once the important data changes at any time