SAFETY DATA SHEET

DIETHYLENE GLYCOL **MONOETHYL**

ETHER (DE)

JIANGSU DYNAMIC CHEMICAL CO., LTD.

According to GHS (Sixth Revised Edition)

Section 1 Product and Company Identification

> Product Identifier

Product Name

DIETHYLENE GLYCOL MONOETHYL ETHER (DE)

Synonyms

CAS No.

111-90-0

EC No.

203-919-7

Molecular Formula

C6H14O3

> Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant Identified

Uses

Please consult manufacturer.

Uses Advised Against

Please consult manufacturer.

> Details of the Supplier of the Safety Data Sheet

Applicant Name

JIANGSU DYNAMIC CHEMICAL CO., LTD.

Application Address

1-A22-1 BAILONG ROAD, NANJING CHEMICAL INDUSTRY PARK, CHINA

1-A22-1 BAILONG ROAD, NANJING CHEMICAL INDUSTRY PARK, CHINA

Applicant Post Code

210047

Applicant Telephone

+86-25-58391612

Applicant Fax

+86-25-57092798

Applicant E-mail

709929706@qq.com

Manufacturer Name

JIANGSU DYNAMIC CHEMICAL CO., LTD.

Manufacturer

Address

Manufacturer Post

210047

Code

Manufacturer **Telephone**

+86-25-58391612

Manufacturer Fax

+86-25-57092798

Manufacturer E-mail

709929706@qq.com

> Emergency Phone Number

Emergency Phone

+86-25-57098565

Number

Section 2 Hazards Identification

Hazard class and label elements of the product according to GHS (the sixth revised edition):

> GHS Hazard Class

Acute Toxicity - Oral

Category 5

Corrosion/Irritation

Category 3

Eye Damage/Irritation

Category 2A

> GHS Label Elements

Pictogram



Signal Word

Warning

> Hazard Statements

H303

May be harmful if swallowed

H316

Causes mild skin irritation

H319

Causes serious eve irritation

> Precautionary Statements

Prevention

P264

Wash ... thoroughly after handling.

P280

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

Response

P312

Call a POISON CENTER/doctor, if you feel unwell.

P332+P313

If skin irritation occurs: Get medical advice/attention.

P337+P313

If eye irritation persists: Get medical advice/attention.

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

Storage

Not applicable

Disposal

Not applicable

Section 3 Composition/Information on Ingredients

Component DIETHYLENE GLYCOL Concentration (weight percent, %)

CAS No.

EC No.

MONOETHYL ETHER (DE)

Commercial secrets

111-90-0

203-919-7

Section 4 First Aid Measures

> Description of First Aid Measures

General Advice

Immediate medical attention is required. Show this safety data sheet (SDS) to

the doctor in attendance.

Eye Contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a

physician if feel uncomfortable.

Skin Contact

Ingestion

Take off contaminated clothing and shoes immediately. Wash off with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.

Do not induce vomiting. Never give anything by mouth to an unconscious

person. Call a physician or Poison Control Center immediately.

Inhalation

Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately.

Protecting of First-aiders

breathing, give artificial respiration and consult a physician immediately. Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

> Most Important Symptoms and Effects, both Acute and Delayed

Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

> Indication of Any Immediate Medical Attention and Special Treatment Needed

- Treat symptomatically.
- 2 Symptoms may be delayed.

Section 5 Fire Fighting Measures

> Extinguishing Media

Suitable Extinguishing Media

Dry chemical, carbon dioxide, water spray, alcohol-resistant foam.

Unsuitable

Extinguishing Media

Do not use a solid water stream as it may scatter or spread fire.

> Specific Hazards Arising from the Substance or Mixture

- 1 Containers may explode when heated.
- 2 Fire exposed containers may vent contents through pressure relief valves.
- 3 May expansion or decompose explosively when heated or involved in fire.

> Advice for Firefighters

- As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
- 2 Fight fire from a safe distance, with adequate cover.
- 3 Prevent fire extinguishing water from contaminating surface water or the ground water system.

Section 6 Accidental Release Measure

> Personal Precautions, Protective Equipment and Emergency Procedures

- 1 Ensure adequate ventilation. Remove all sources of ignition.
- 2 Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
- 3 Use personal protective equipment. Avoid breathing vapours, mist, gas or dust.

> Environmental Precautions

- 1 Prevent further leakage or spillage if safe to do so.
- 2 Discharge into the environment must be avoided.

> Methods and Materials for Containment and Cleaning Up

- Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
- Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.
- 3 Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

> Precautions for Handling

Section 7 Handling and Storage

- 1 Handling is performed in a well ventilated place.
- 2 Wear suitable protective equipment.
- 3 Avoid contact with skin and eyes.
- 4 Keep away from heat/sparks/open flames/ hot surfaces.
- 5 Take precautionary measures against static discharges.

> Precautions for Storage

- 1 Keep containers tightly closed.
- 2 Keep containers in a dry, cool and well-ventilated place.
- 3 Keep away from heat/sparks/open flames/ hot surfaces.
- 4 Store away from incompatible materials and foodstuff containers.

Section 8 Exposure Controls/Personal Protection

> Control Parameters

Occupational Exposure Limit Values

Commonant	Ctura/Danian	Limit Value	- Eight Hours	Limit Value - Short Term		
Component	Country/Region	ppm	mg/m³	ppm	mg/m³	
DIETHYLENE GLYCOL MONOETHYL	Switzerland	_	50	_	100	
	Sweden	15	80	30	170	
	Germany (DFG)	_	50	-	100	
ETHER (DE) 111-90-0	Germany (AGS)	6	35	12	70	
117 50.0	Canada - Ontario	30	165	_	_	

Biological Limit Values

No information available

Monitoring Methods

- 1 EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
- 2 GBZ/T 160.1~GBZ/T 160.81-2004 Determination of toxic substances in workplace air (Series standard).

> Engineering Controls

- 1 Ensure adequate ventilation, especially in confined areas.
- 2 Ensure that eyewash stations and safety showers are close to the workstation location.
- 3 Use explosion-proof electrical/ventilating/lighting/equipment.
- 4 Set up emergency exit and necessary risk-elimination area.

> Personal Protection Equipment

Body

Eye Protection Tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US).

Hand Protection Wear protective gloves (such as butyl rubber) , passing the tests according to

EN 374(EU), US F739 or AS/NZS 2161.1 standard.

If exposure limits are exceeded or if irritation or other symptoms are

Respiratory protection experienced, use a full-face respirator with multi-purpose combination (US) or

type AXBEK (EN 14387) respirator cartridges.

Skin and

Protection

Wear fire/flame resistant/retardant clothing and antistatic boots.

Section 9 Physical and Chemical Properties

Appearance: Colorless transparent liquid

Odor Threshold: No information available

Melting Point/Freezing Point (°C): -76

Flash Point (°C) (Closed Cup): 96

Flammability: Not applicable

Vapor Pressure (MPa): 19Pa

Relative Density (g/cm³): 0.99

n-Octanol/Water Partition Coefficient: -0.15

Decomposition Temperature (°C): No information Kinematic Viscosity (mm²/s): No information

available

Particle characteristics: Not applicable

Odor: No information available

pH: No information available

Initial Boiling Point and Boiling Range (°C): 196~202

Evaporation Rate: No information available

Upper/lower explosive limits[%(v/v)]: Upper limit : No information available ; Lower limit : No information

available

Vapor Density (g/mL): 4.6

Solubility: Miscible with water

Auto-Ignition Temperature(°C): 204

available

Section 10 Stability and Reactivity

Reactivity

Contact with incompatible substances can cause decomposition or other

chemical reactions.

Chemical Stability

Stable under proper operation and storage conditions.

Possibility of

Hazardous Reactions

No information available

Conditions to Avoid

Incompatible materials, heat, flame and spark.

Incompatible Materials

No information available

Hazardous

Decomposition

products

Under normal conditions of storage and use, hazardous decomposition

products should not be produced.

Section 11 Toxicological Information

> Acute Toxicity

Component	CAS No.	LD ₅₀ (Oral)	LD ₅₀ (Dermal)	LC ₅₀ (Inhalation, 4h)		
DIETHYLENE GLYCOL MONOETHYL ETHER (DE)	111-90-0	3620mg/kg(Rabbit)	No information available	> 5.24mg/L(Rat)		

> Skin Corrosion/Irritation

Causes mild skin irritation(Category 3)(DIETHYLENE GLYCOL MONOETHYL ETHER (DE))

> Serious Eye Damage/Irritation

Causes serious eye irritation(Category 2A)(DIETHYLENE GLYCOL MONOETHYL ETHER (DE))

> Skin Sensitization

No information available

> Respiratory Sensitization

No information available

> Germ Cell Mutagenicity

No information available

> Carcinogenicity

ID	CAS No.	Component	IARC	NTP		
1 111-90-0	DIETHYLENE GLYCOL					
	MONOETHYL ETHER	MONOETHYL ETHER Not Listed				
		(DE)				

> Reproductive Toxicity

No information available

> Reproductive Toxicity (Additional)

No information available

> STOT-Single Exposure

Causes mild skin irritation(Category 3)(DIETHYLENE GLYCOL MONOETHYL ETHER (DE))

> STOT-Repeated Exposure

No information available

> Aspiration Hazard

No information available

Section 12 Ecological Information

> Acute Aquatic Toxicity

Component	CAS No.	Fish	Crustaceans	Algae	
DIETHYLENE GLYCOL MONOETHYL ETHER (DE)	111-90-0	LC₅₀ : 13900mg/L (96h)(Fish)	EC₅₀ : 4000mg/L (48h)	No information available	

> Chronic Aquatic Toxicity

No information available

> Others

Persistence and Degradability Bioaccumulative Potential

No information available

No information available

Mobility in Soil
Results of PBT and
vPvB Assessment

No information available

DIETHYLENE GLYCOL MONOETHYL ETHER (DE) does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.

Section 13 Disposal Considerations

Waste Chemicals

Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.

Contaminated Packaging Disposal Recommendations Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.

Refer to section 13.1and 13.2.

Section 14 Transport Information

Transporting Label

Not applicable

UN Number

UN Proper Shipping

Name

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport Hazard Class

Transport Subsidiary

Hazard Class

None None

Packing Group

Section 15 Regulatory Information

> International Chemical Inventory

Component	EINECS	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AICS	ENCS	1
DIETHYLENE GLYCOL MONOETHYL ETHER (DE)	√	√	√	V	√	√	√	√	√ √	
FEINITECT F										1

[EINECS] European Inventory of Existing Commercial Chemical Substances.

[TSCA] United States Toxic Substances Control Act Inventory.

[DSL] Canadian Domestic Substances List.

[IECSC] China Inventory of Existing Chemical Substances.

[NZIoC] New Zealand Inventory of Chemicals.

[PICCS] Philippines Inventory of Chemicals and Chemical Substances.

[KECI] Existing and Evaluated Chemical Substances.[AICS] Australia Inventory of Chemical Substances.

[ENCS] Existing And New Chemical Substances.

Note

" $\sqrt{}$ " Indicates that the substance included in the regulations

"x" That no data or included in the regulations

Section 16 Additional Information

Creation Date

2017/01/17

Revision Date

2017/01/17

Reason for Revision

> Disclaimer

This Safety Data Sheet (SDS) was prepared according to UN GHS (the 6th revised edition). The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.