SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 Version 7.1 Revision Date 07.06.2018 Print Date 07.08.2018 GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers Product name : D

Diisopropyl ether

CAS-No. : 108-20-3

1.2 Details of the supplier of the safety data sheet

Company	: Nanjing Chemical Material Corp.
	No.5 New Model Rd, Nanjing 210009, China
Telephone	: +86 25 52337978
Fax	: +86 25 83304509
Web	: www.njchm.com

1.4 Emergency telephone number

Emergency Phone # : +86 25 52337978

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 Flammable liquids (Category 2), H225 Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 Pictogram

Signal word



Danger

Hazard statement(s) H225 H336 SIGALD - 673803

Highly flammable liquid and vapour. May cause drowsiness or dizziness. Precautionary statement(s) P210

F210	ignition sources. No smoking.
P370 + P378	In case of fire: Use dry powder or dry sand to extinguish.
P403 + P235	Store in a well-ventilated place. Keep cool.
Supplemental Hazard information	on (EU)

Keen away from best bet surfaces enables onen flomes and other

EUH019	May form explosive peroxides.
EUH066	Repeated exposure may cause skin dryness or cracking.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. May form explosive peroxides.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	:	Isopropyl ether
Molecular weight	:	102,17 g/mol
CAS-No.	:	108-20-3
EC-No.	:	203-560-6
Index-No.	:	603-045-00-X

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component		Classification	Concentration
Hydroquinone			
CAS-No.	123-31-9	Acute Tox. 4; Eye Dam. 1;	>= 0,0025 - <
EC-No.	204-617-8	Skin Sens. 1; Muta. 2; Carc. 2;	0,025 %
Index-No.	604-005-00-4	Aquatic Acute 1; Aquatic Chronic 1; H302, H318, H317, H341, H351, H400, H410 M-Factor - Aquatic Acute: 10 - Aquatic Chronic: 1	

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed No data available

SIGALD - 673803

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Dry powder Dry sand

Unsuitable extinguishing media Do NOT use water jet.

5.2 Special hazards arising from the substance or mixture Carbon oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking.Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place. Storage class (TRGS 510): 3: Flammable liquids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact Material: butyl-rubber Minimum layer thickness: 0,3 mm Break through time: 480 min Material tested:Butoject® (KCL 897 / Aldrich Z677647, Size M)

Splash contact Material: Nitrile rubber Minimum layer thickness: 0,2 mm Break through time: 35 min Material tested:Dermatril® P (KCL 743 / Aldrich Z677388, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Impervious clothing, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a)	Appearance	Form: clear, liquid Colour: colourless
b)	Odour	No data available
c)	Odour Threshold	No data available
d)	рН	No data available
e)	Melting point/freezing point	Melting point/range: -85 °C
f)	Initial boiling point and boiling range	65 - 70 °C at 1013 hPa

	g)	Flash point	-29 °C - closed cup
	h)	Evaporation rate	No data available
	i)	Flammability (solid, gas)	No data available
	j)	Upper/lower flammability or explosive limits	Upper explosion limit: 21 %(V) Lower explosion limit: 1 %(V)
	k)	Vapour pressure	227 hPa at 25 °C 160 hPa at 20 °C
	I)	Vapour density	3,53 - (Air = 1.0)
	m)	Relative density	0,73 g/cm3
	n)	Water solubility	3,11 g/l at 20,2 °C - soluble
	o)	Partition coefficient: n- octanol/water	log Pow: 2,4
	p)	Auto-ignition temperature	No data available
	q)	Decomposition temperature	No data available
	r)	Viscosity	No data available
	s)	Explosive properties	No data available
	t)	Oxidizing properties	No data available
	Oth	ner safety information	
		Relative vapour density	3,53 - (Air = 1.0)
Г	ION	10: Stability and reactivi	ty

SECTION 10: Stability and reactivity

Reactivity 10.1 No data available

9.2

10.2 Chemical stability

Stable under recommended storage conditions. Contains the following stabiliser(s): 2,6-di-tert-Butyl-p-cresol (<=0,015 %) Hydroquinone (<=0,015 %)

- Possibility of hazardous reactions 10.3 No data available
- 10.4 Conditions to avoid Heat, flames and sparks.
- 10.5 Incompatible materials Strong oxidizing agents

10.6 Hazardous decomposition products Hazardous decomposition products formed under fire conditions. - Carbon oxides Other decomposition products - No data available In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity LD50 Oral - Rat - 5.880 mg/kg Remarks: (RTECS)



Skin corrosion/irritation

Serious eye damage/eye irritation

Eyes - Rabbit Result: No eye irritation (OECD Test Guideline 405)

Respiratory or skin sensitisation

Sensitisation test: - Mouse Result: Does not cause skin sensitisation. (OECD Test Guideline 429) Remarks: (External MSDS)

Germ cell mutagenicity

Ames test Salmonella typhimurium Result: negative (External MSDS)

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.

Acute oral toxicity - Nausea, Vomiting, Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract., Risk of aspiration upon vomiting. Acute inhalation toxicity - mucosal irritations, Cough, Shortness of breath

Specific target organ toxicity - repeated exposure

Aspiration hazard

Additional Information RTECS: TZ5425000

Nausea, Headache, Vomiting, narcosis To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

After absorption of large quantities: Headache, narcosis, agitation, Unconsciousness, respiratory arrest, drop in blood pressure Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information

12.1	Toxicity		
	Toxicity to fish	flow-through test LC50 - Pimephales promelas (fathead minnow) - > 100 mg/l - 96 h(Diisopropyl ether) Remarks: (External MSDS)	
	Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 190 mg/l - 48 h(Diisopropyl ether) (OECD Test Guideline 202)	
	Toxicity to algae	EC50 - Pseudokirchneriella subcapitata (green algae) - > 1.000 mg/l - 96 h(Diisopropyl ether) (OECD Test Guideline 201)	
	Toxicity to bacteria	static test NOEC - activated sludge - 370 mg/l - 3 h(Diisopropyl ether)	

12.2 Persistence and degradability

Biodegradability

aerobic - Exposure time 28 d(Diisopropyl ether) Result: 0 % - Not biodegradable (OECD Test Guideline 301D)

Theoretical oxygen	2.833 mg/g(Diisopropyl ether)
demand	Remarks: (Lit.)

12.3 Bioaccumulative potential

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Contaminated packaging

	Contaminated packaging		
	Dispose of as unused product.		
		160	
SECT	ON 14: Transport information	SVV	
14.1	UN number ADR/RID: 1159	IMDG: 1159	IATA: 1159
14.2	UN proper shipping nameADR/RID:DIISOPROPYL ETHERIMDG:DIISOPROPYL ETHERIATA:Diisopropyl ether	R R	
14.3	Transport hazard class(es) ADR/RID: 3	IMDG: 3	IATA: 3
14.4	Packaging group ADR/RID: II	IMDG: II	IATA: II
14.5	Environmental hazards ADR/RID: no	IMDG Marine pollutant: no	IATA: no
14.6	Special precautions for user No data available		

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture 15.1 This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 **Chemical safety assessment** For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

EUH019	May form explosive peroxides.
EUH066	Repeated exposure may cause skin dryness or cracking.
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

