

SAFETY DATA SHEET



Neopentyl glycol flake 10470

Version / Revision 4 .00***
Supersedes Version 3 .00***

Revision Date 12-May-2015
Issuing date 12-May-2015

SECTION 1: Identification

1.1. Product identifier

Identification of the substance/preparation

Neopentyl glycol flake

Chemical Name 2,2-Dimethylpropane-1,3-diol
CAS-No 126-30-7

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance / Preparation Intermediate Monomer

1.3. Details of the supplier of the safety data sheet

Supplier **Everchem Specialty Chemicals**
1400 N. Providence Road, Ste 302
Media, PA 19063
USA
Phone: (484) 234-5030

Product Information Product Stewardship
FAX: (484) 234-5037
www.everchem.com

1.4. Emergency telephone number

Emergency telephone number in USA, call 800 424 9300
outside USA, call 703 527 3887, collect calls accepted
available 24/7***

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

This substance is classified in accordance with paragraph (d) of §1910.1200 (GHS-US classification).***

Serious eye damage/eye irritation Category 1, H318***

OSHA Specified Hazards .***
Combustible dust***

2.2. Label elements

Labeling according to §1910.1200 (GHS-US labeling).***

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Hazard symbol(s) ***



Signal word **Danger*****

Hazard statements H318: Causes serious eye damage.
May form combustible dust concentrations in air.***

Precautionary statements ***

Prevention P280: Wear eye protection/face protection.***

Response P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER/doctor.***

2.3. Other hazards

Components of the product may be absorbed into the body by inhalation and ingestion***

SECTION 3: Composition/information on ingredients

3.1. Substances

Component	CAS-No	Concentration (%)
2,2-Dimethylpropane-1,3-diol	126-30-7	> 99,0

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

Keep at rest. Breathe with fresh air. When symptoms persist or in all cases of doubt seek medical advice.

Eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.

Skin

Wash off immediately with plenty of water. When symptoms persist or in all cases of doubt seek medical advice.

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Ingestion

Call a physician immediately. Do not induce vomiting without medical advice.

4.2. Most important symptoms and effects, both acute and delayed

Main symptoms

cough.

Special hazard

Lung irritation.

4.3. Indication of any immediate medical attention and special treatment needed

General advice

Remove contaminated, soaked clothing immediately and dispose of safely. First aider needs to protect himself.

Treat symptomatically. If ingested, irrigate the stomach using activated charcoal.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

foam, dry chemical, carbon dioxide (CO₂), water spray

Extinguishing media which must not be used for safety reasons

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

5.2. Special hazards arising from the substance or mixture

Under conditions giving incomplete combustion, hazardous gases produced may consist of:

carbon monoxide (CO)

carbon dioxide (CO₂)

Combustion gases of organic materials must in principle be graded as inhalation poisons

Dust can form an explosive mixture in air

5.3. Advice for firefighters

Special protective equipment for firefighters

Fire fighter protection should include a self-contained breathing apparatus (NIOSH-approved or EN 133) and full fire-fighting turn out gear.

Precautions for firefighting

Cool containers / tanks with water spray. Dike and collect water used to fight fire. Keep people away from and upwind of fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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Avoid contact with skin and eyes. Do not breathe dust. Keep people away from and upwind of spill/leak. Ensure adequate ventilation, especially in confined areas. Keep away from heat and sources of ignition.
For emergency responders: Personal protection see section 8.

6.2. Environmental precautions

Prevent further leakage or spillage. Do not discharge product into the aquatic environment without pretreatment (biological treatment plant).

6.3. Methods and material for containment and cleaning up

Methods for containment

Stop the flow of material, if possible without risk. Dike spilled material, where this is possible.

Methods for cleaning up

Use mechanical handling equipment. Keep in suitable, closed containers for disposal. Dispose of in accordance with local regulations. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).

6.4. Reference to other sections

For personal protective equipment see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid dust formation. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Provide sufficient air exchange and/or exhaust in work rooms.

Hygiene measures

When using, do not eat, drink or smoke. Take off all contaminated clothing immediately. Wash hands before breaks and immediately after handling the product.

Advice on the protection of the environment

See Section 8: Environmental exposure controls.

Incompatible products

strong oxidizing agents

7.2. Conditions for safe storage, including any incompatibilities

Advice on protection against fire and explosion

Risk of dust explosion in fine crystalline powder form. Dust can form an explosive mixture in air. Keep away from sources of ignition - No smoking. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). In case of fire, emergency cooling with water spray should be available. Ground and bond containers when transferring material.

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Technical measures/Storage conditions

Keep containers tightly closed in a cool, well-ventilated place. Handle and open container with care. Protect from moisture.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits United States of America

US ACGIH

Component	TWA (mg/m ³)	TWA (ppm)	STEL (mg/m ³)	STEL (ppm)
Dust, general threshold limit value (inhalable fraction) CAS: None	10			
Dust, general threshold limit value (respirable fraction) CAS: None	3			

US OSHA Z-1

Component	Ceiling (mg/m ³)	Ceiling (ppm)	PEL (mg/m ³)	PEL (ppm)	Skin Designation
Dust, general threshold limit value (inhalable fraction) CAS: None			15		
Dust, general threshold limit value (respirable fraction) CAS: None			5		

Note

For details and further information please refer to the original regulation.

8.2. Exposure controls

Appropriate Engineering controls

General or dilution ventilation is frequently insufficient as the sole means of controlling employee exposure. Local ventilation is usually preferred. Explosion-proof equipment (for example fans, switches, and grounded ducts) should be used in mechanical ventilation systems.

Individual protection measures, such as personal protective equipment

General industrial hygiene practice

Avoid contact with skin, eyes and clothing. Do not breathe dust or mist. Ensure that eyewash stations and safety showers are close to the workstation location.***

Hygiene measures

When using, do not eat, drink or smoke. Take off all contaminated clothing immediately. Wash hands before breaks and immediately after handling the product.

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Eye protection

Tightly fitting safety goggles. In addition to goggles, wear a face shield if there is a reasonable chance for splash to the face.

Hand protection

Wear protective gloves. Recommendations are listed below. Other protective material may be used, depending on the situation, if adequate degradation and permeation data is available. If other chemicals are used in conjunction with this chemical, material selection should be based on protection for all chemicals present.

Suitable material	nitrile rubber
Evaluation	according to EN 374: level 6
Glove thickness	approx 0,55 mm
Break through time	> 480 min

Suitable material	polyvinylchloride
Evaluation	Information derived from practical experience
Glove thickness	approx 0,8 mm

Skin and body protection

Impervious clothing. Wear face-shield and protective suit for abnormal processing problems.

Respiratory protection

Respirator with a particle filter (P3). Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust). Equipment should conform to NIOSH.

Environmental exposure controls

If possible use in closed systems. If leakage can not be prevented, the substance needs to be suck off at the emersion point, if possible without danger. Observe the exposure limits, clean exhaust air if needed. If recycling is not practicable, dispose of in compliance with local regulations. Inform the responsible authorities in case of leakage into the atmosphere, or of entry into waterways, soil or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	crystalline Flakes
Granulometry	
Fraction μm	Weight %
< 200	97
< 125	57
< 71	16
< 51	9
Median	M = 120 μm
Colour	white
Odour	sweet
Odour threshold	No data available
pH	not applicable
Melting point/range	255 - 266 °F (124 - 130 °C)

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Boiling point/range 407 °F (208,5 °C) @ 1 atm (101,3 kPa)
Flash point 225 °F (107 °C)
Method closed cup
Evaporation rate No data available
Flammability (solid, gas) Does not apply, the substance is a liquid
Lower explosion limit 1,1 Vol %
Upper explosion limit 11,4 Vol %

Vapour pressure ***
Values Values Values @ °C @ °F Method
[hPa] [kPa] [atm]
0,00024 0,000024*** < 0,001*** 20 68
6,9 0,69*** 0,007*** 90 194
88 8,8*** 0,087*** 140 284

Vapour density No data available

Relative density ***
Values @ °C @ °F Method
1,035*** 20 68 OECD 109***

Solubility No data available
Water solubility 830 g/l @ 68 °F (20 °C)
log Pow -0,15 (measured) OECD 107***
Autoignition temperature 750 °F (399 °C)
Decomposition temperature No data available
Viscosity 6,43 mPa*s @ 282 °F (139 °C)
Method dynamic

9.2. Other information

Molecular weight 104,15
Molecular formula C5 H12 O2
Minimum ignition energy 150 mJ < E min. < 260 mJ with inductivity
Oxidizing properties Does not apply, substance is not oxidising. There are no chemical groups associated with oxidizing properties
Bulk density ~ 500 kg/m³ @ 20 °C (68 °F)
Explosive properties Does not apply, substance is not explosive. There are no chemical groups associated with explosive properties
Surface tension 72 mN/m (1 g/l @ 20°C), OECD 115***
hygroscopic. Dust can form an explosive mixture in air.

SECTION 10: Stability and reactivity

10.1. Reactivity

The reactivity of the product corresponds to the typical reactivity shown by the substance group as described in any text book on organic chemistry.

10.2. Chemical stability

Stable under recommended storage conditions.

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10.3. Possibility of hazardous reactions

Dust can form an explosive mixture in air.

10.4. Conditions to avoid

Avoid contact with heat, sparks, open flame and static discharge. Avoid any source of ignition.

10.5. Incompatible materials

strong oxidizing agents.

10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure Ingestion, Skin contact, Inhalation, Eye contact***

2,2-Dimethylpropane-1,3-diol, CAS: 126-30-7

Main symptoms

cough.

Target Organ Systemic Toxicant - Single exposure

Based on available data, the classification criteria are not met for:

STOT SE***

Target Organ Systemic Toxicant - Repeated exposure

Based on available data, the classification criteria are not met for:

STOT RE***

Acute toxicity				
2,2-Dimethylpropane-1,3-diol (126-30-7)				
Routes of Exposure	Endpoint	Values	Species	Method
Oral	LD50	> 6400 mg/kg	rat, male/female	OECD 401
Oral	LD50	6920 mg/kg	rat, male/female	OECD 401
Inhalative	LC0	140 mg/m ³	rat, male/female	OECD 403
Dermal	LD50	> 4000 mg/kg	guinea pig	OECD 402

2,2-Dimethylpropane-1,3-diol, CAS: 126-30-7

Assessment

Based on available data, the classification criteria are not met for:

Acute oral toxicity

Acute dermal toxicity

Acute inhalation toxicity***

Irritation and corrosion

2,2-Dimethylpropane-1,3-diol (126-30-7)

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Target Organ Effects	Species	Result	Method	
Skin	rabbit	Mild skin irritation	OECD 404	24h***
Eyes	rabbit	severe irritation	OECD 405	

2,2-Dimethylpropane-1,3-diol, CAS: 126-30-7

Assessment

The available data lead to the classification given in section 2
Based on available data, the classification criteria are not met for:
skin irritation/corrosion***

Sensitization				
2,2-Dimethylpropane-1,3-diol (126-30-7)				
Target Organ Effects	Species	Evaluation	Method	
Skin	mouse	not sensitizing	OECD 429	

2,2-Dimethylpropane-1,3-diol, CAS: 126-30-7

Assessment

Based on available data, the classification criteria are not met for:
Skin sensitization
For respiratory sensitization, no data are available***

Subacute, subchronic and prolonged toxicity				
2,2-Dimethylpropane-1,3-diol (126-30-7)				
Type	Dose	Species	Method	
Subchronic toxicity***	NOEL: 1000 mg/kg/d***	rat, male/female	OECD 408***	Oral
Subacute toxicity***	LOAEL: 4000 ppm***	rat***		Inhalation***

2,2-Dimethylpropane-1,3-diol, CAS: 126-30-7

Assessment

Based on available data, the classification criteria are not met for:
STOT RE***

Carcinogenicity, Mutagenicity, Reproductive toxicity					
2,2-Dimethylpropane-1,3-diol (126-30-7)					
Type	Dose	Species	Evaluation	Method	
Mutagenicity		Salmonella typhimurium	negative	OECD 471 (Ames)	In vitro study
Mutagenicity		V79 cells, Chinese hamster***	negative***	OECD 476 (Mammalian Gene Mutation)***	In vitro study
Mutagenicity		CHL	negative***	Chromosomal Aberration***	In vitro study
Developmental Toxicity	NOAEL 1000 mg/kg/d	rat, 1. Generation, male/female***		OECD 422, Oral	Developmental toxicity***
Reproductive toxicity	NOAEL 1000 mg/kg/d	rat, parental		OECD 422, Oral	
Reproductive toxicity	NOAEL 1000 mg/kg/d	rat, 1. Generation, male/female		OECD 414***	Maternal toxicity Teratogenicity***

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2,2-Dimethylpropane-1,3-diol, CAS: 126-30-7

CMR Classification

The available data on CMR properties are summarized in the table above. They do not indicate a classification into categories 1A or 1B***

Evaluation

Did not show reprotoxic or mutagenic effects in animal experiments
In the absence of specific alerts no cancer testing is required***

2,2-Dimethylpropane-1,3-diol, CAS: 126-30-7

Other adverse effects

Components of the product may be absorbed into the body by inhalation and ingestion.

Note

Handle in accordance with good industrial hygiene and safety practice. Further details on substance data can be found in the registration dossier under the following link: <http://apps.echa.europa.eu/registered/registered-sub.aspx>.***

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity			
2,2-Dimethylpropane-1,3-diol (126-30-7)			
Species	Exposure time	Dose	Method
Daphnia magna (Water flea)	48h	EC50: > 500 mg/l	84/449/EEC C.2
Desmodesmus subspicatus	72h	EC20: > 500 mg/l***	DIN 38412, part 9
Oryzias latipes (Medaka)	48h	LC50: > 10000 mg/l	JIS
Leuciscus idus (Golden orfe)	48h	LC0: 10000 mg/l	
Activated sludge (domestic)	24h	TTC: 2000 mg/l	ETAD Fermentation tube method

Long term toxicity				
2,2-Dimethylpropane-1,3-diol (126-30-7)				
Type	Species	Dose	Method	
Mortality***	Daphnia magna (Water flea)***	NOEC: > 1000 mg/l (21 d)***		

12.2. Persistence and degradability

2,2-Dimethylpropane-1,3-diol, CAS: 126-30-7

Biodegradation

> 70 - < 80 % (28 d), Readily biodegradable, activated sludge, non-adapted, aerobic, domestic, OECD 301 B.***

Abiotic Degradation		
2,2-Dimethylpropane-1,3-diol (126-30-7)		
Type	Result	Method
Hydrolysis***	Half-life (DT50): t1/2 (pH 4): 1 yr @ 25°C***	OECD 111***

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Hydrolysis***	Half-life (DT50): t1/2 (pH 7): 1 yr @ 25°C***	OECD 111***
Hydrolysis***	Half-life (DT50): t1/2 (pH 9): 1 yr @ 25°C***	OECD 111***
Photolysis***	Photochemical reaction with OH Radicals Half-life (DT50): 1,851 d @ 25°C***	SRC AOP v1.92***

12.3. Bioaccumulative potential

2,2-Dimethylpropane-1,3-diol, CAS: 126-30-7

Bioaccumulative potential

BCF: < 9***

(OECD 305 C)***

log Pow

-0,15 (measured) OECD 107***

12.4. Mobility in soil

<u>2,2-Dimethylpropane-1,3-diol (126-30-7)</u>		
Type	Result	Method
Distribution to environmental compartments***	Air: 0,01 %***	Calculation according Mackay, Level I v3.00, 07 Dec 07***
Distribution to environmental compartments***	Soil: 0,01 %***	Calculation according Mackay, Level I v3.00, 07 Dec 07***
Distribution to environmental compartments***	Water: 100 %***	Calculation according Mackay, Level I v3.00, 07 Dec 07***
Distribution to environmental compartments***	Sediment: 0,01 %***	Calculation according Mackay, Level I v3.00, 07 Dec 07***
Adsorption/Desorption***	log Koc: 0***	calculated (SRC PCKOCWIN v1.66, 2007***)
Surface tension***	72 mN/m (1 g/l @ 20°C)***	OECD 115***

12.5 Other adverse effects

2,2-Dimethylpropane-1,3-diol, CAS: 126-30-7

No data available***

Note

Avoid release to the environment.

SECTION 13: Disposal considerations

Product Information

Disposal required in compliance with all waste management related state and local regulations. The choice of the appropriate method of disposal depends on the product composition by the time of disposal as well as the local statutes and possibilities for disposal.

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Uncleaned empty packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

SECTION 14: Transport information

Section 14.1 - 14.6 ***

D.O.T. (49CFR) Not restricted

ICAO/IATA Not restricted

IMDG Not restricted***

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code not applicable***

SECTION 15: Regulatory information

Federal and State Regulations

Components of the product are listed in the quoted regulations. For details please refer to the regulations directly. This list is not exhaustive, please check for other applicable regulations.

Federal Regulations

This product is listed on the TSCA inventory

International Inventories

2,2-Dimethylpropane-1,3-diol, CAS: 126-30-7

AICS (AU)
DSL (CA)
IECSC (CN)
EC-No. 2047810 (EU)
ENCS (2)-240 (JP)
ISHL (2)-240 (JP)
KECI KE-11811 (KR)
INSQ (MX)***
PICCS (PH)
TSCA (US)
NZIoC (NZ)
TCSI (TW)***

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SECTION 16: Other information

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Hazard Rating Systems

NFPA (National Fire Protection Association)

Health Hazard	1
Fire Hazard	1
Reactivity	0

HMIS (Hazardous Material Information System)

Health Hazard	1
Flammability	1
Physical Hazard	0

Training advice

For effective first-aid, special training / education is needed.

Sources of key data used to compile the datasheet

Information contained in this safety data sheet is based on Everchem Specialty Chemicals owned data and public sources deemed valid or acceptable. The absence of data elements required by ANSI or Annex II, Regulation 1907/2006/EC indicates, that no data meeting these requirements is available.

Further information for the safety data sheet

Changes against the previous version are marked by ***. Observe national and local legal requirements. For more information, other material safety data sheets or technical data sheets please consult the Everchem Specialty Chemicals homepage (www.everchem.com).

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End of Safety Data Sheet