SAFETY DATA SHEET

Neopentylglycol, 90% aqueous solution
10490
Version / Revision 2 .00
Supersedes Version 1 .00

SECTION 1: Identification

1.1. Product identifier

Identification of the substance/preparation

Neopentylglycol, 90% aqueous solution

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
Media, PA 19063
USA
Phone: (484) 234-5030

Product Information

Product Stewardship
FAX: (484) 234-5037

1.4. Emergency telephone number

For Chemical Emergency - Spill, Leak, Fire, Exposure or Accident
Call CHEMTREC Day or Night USA + Canada = 1-800-424-9300 / 703-527-3887

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

Not applicable.

2.2. Label elements

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

Hazard symbol(s)

Signal word	**Danger**
Hazard statements	H318: Causes serious eye damage.
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

Caution Hot!
Contact with product at elevated temperatures can result in thermal burns
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	~ 90,0

Remarks
Aqueous solution.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation
Keep at rest. Aerate 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
Contact with product at elevated temperatures can result in thermal burns. Wash off immediately with plenty of water. Immediate medical attention is required.

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, Contact with product at elevated temperatures can result in thermal burns.

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
Vapours are heavier than air and may spread along floors

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

Avoid contact with skin and eyes. Avoid breathing vapors or mists. 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
Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. If liquid has been spilt in large quantities clean up promptly by scoop or vacuum. 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
Do not handle hot or molten material without appropriate protective equipment. Do not exceed recommended process temperatures to minimize release of decomposition products. 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
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.

Technical measures/Storage conditions
Keep containers tightly closed in a cool, well-ventilated place. Handle and open container with care. Protect from moisture. Keep at temperatures between 63 and 80 °C (145 and 165 °F).

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits United States of America

No exposure limits established regarding ACGIH, OSHA Z-1 and OSHA Z-2.

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 vapours or spray 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.

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	Heat resistant gloves

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

Respiratory protection
Respirator with filter for organic vapour. 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.

Thermal Hazard
Heat only in areas with appropriate exhaust ventilation. When handling hot material, use heat resistant gloves.

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	Hot liquid
Colour	colourless sweet
Odour	No data available
Odour threshold	7 (100 g/l in water @ 20 °C (68 °F)) neutral
pH	approx. 95 °F (35 °C)
Melting point/range	407 °F (208,5 °C) @ 1 atm (101,3 kPa)
Boiling point/range	225 °F (107 °C)
Flash point	closed cup
Method	No data available
Evaporation rate	Does not apply, the substance is a liquid
Flammability (solid, gas)	1,1 Vol %
Lower explosion limit	11,4 Vol %
Upper explosion limit	

Vapour pressure

Values [hPa]	Values [kPa]	Values [atm]	@ °C	@ °F	Method
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
0,971	50	122	DIN 51757

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	30 mPa*s @ 122 °F (50 °C)
Method	dynamic, DIN 51562

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
Explosive properties	Does not apply, substance is not explosive. There are no chemical groups associated with explosive properties

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.

10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.

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/m³	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)				
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

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
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

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

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

Product name	2,2-Dimethylpropane-1,3-diol
Ship type	3
Pollution category	Z

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)

SECTION 16: Other information

Revision Date	12-May-2015
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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 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 homepage (www.everchem.com).

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End of Safety Data Sheet