SAFETY DATA SHEET

Neopentyl glycol flake
10470

Version / Revision	3.01	**Revision Date**	15-Dec-2020
Supersedes Version	3.00***	**Issuing date**	15-Dec-2020

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

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
EC No. 204-781-0
Registration number (REACh) 01-2119480396-30

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

Identified uses
Intermediate
Formulation
Distribution of substance
laboratory chemicals
Polymerization
coatings
Road and construction applications

Uses advised against None

1.3. Details of the supplier of the safety data sheet

Company/Undertaking Identification
OQ Chemicals GmbH
Rheinpromenade 4A
D-40789 Monheim
Germany

Product Information
Product Stewardship
FAX: +49 (0)208 693 2053
email: sc.psq@oq.com

1.4. Emergency telephone number

Emergency telephone number +44 (0) 1235 239 671 (UK) available 24/7

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

This substance is classified based on Directive 1272/2008/EC and its amendments (CLP Regulation)

Serious eye damage/eye irritation Category 1, H318

Additional information
For full text of Hazard- and EU Hazard-statements see SECTION 16.

2.2. Label elements

Labelling according to Regulation 1272/2008/EC and its amendments (CLP Regulation).

Hazard pictograms

Signal word **Danger**

Hazard statements H318: Causes serious eye damage.

Precautionary statements P280: Wear protective gloves/protective clothing/eye protection/face protection.
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

Dust can form an explosive mixture in air
Components of the product may be absorbed into the body by inhalation and ingestion

PBT and vPvB assessment This substance is not considered to be persistent, bioaccumulating nor toxic (PBT), nor very persistent nor very bioaccumulating (vPvB)

SECTION 3: Composition / information on ingredients

3.1. Substances

Component	CAS-No	REACh-No	1272/2008/EC	Concentration (%)
2,2-Dimethylpropane-1,3-diol	126-30-7	01-2119480396-30	Eye Dam. 1; H318	> 99,0

For full text of Hazard- and EU Hazard-statements see SECTION 16.

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

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

Unsuitable Extinguishing Media
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

For non-emergency personnel: For personal protective equipment see section 8. 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. Avoid dust formation. 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.

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

Temperature class
T2

7.3. Specific end use(s)

Intermediate
Formulation

Distribution of substance
laboratory chemicals
Polymerization
coatings
Road and construction applications

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Exposure limits Egypt

Egypt OELs; Threshold limits of air pollutants in the workplace (Decree No. 338, Annex 8)

Component	TWA (mg/m³)	TWA (ppm)	STEL (mg/m³)	STEL (ppm)
Dust, general threshold limit value (inhalable fraction) CAS: -	10			
Dust, general threshold limit value (respirable fraction) CAS: -	3			

Exposure limits Israel

Israel OELs

Component	TWA (mg/m³)	TWA (ppm)	STEL (mg/m³)	STEL (ppm)
Dust, general threshold limit value (inhalable fraction) CAS: -	10			
Dust, general threshold limit value (respirable fraction) CAS: -	3			

Exposure limits South Africa

South Africa OELs; Recommended exposure limits

Component	TWA (mg/m³)	TWA (ppm)	STEL (mg/m³)	STEL (ppm)
Dust, general threshold limit value (inhalable fraction) CAS: -	10			
Dust, general threshold limit value (respirable fraction) CAS: -	5			

Exposure limits United Arab Emirates

United Arab Emirates OELs

Component	TWA (mg/m³)	TWA (ppm)	STEL (mg/m³)	STEL (ppm)

Dust, general threshold limit value (inhalable fraction) CAS: -	10			
Dust, general threshold limit value (respirable fraction) CAS: -	4			

Exposure limits Kuweit

Kuweit OELs

Component	TWA (mg/m³)	TWA (ppm)	STEL (mg/m³)	STEL (ppm)
Dust, general threshold limit value (inhalable fraction) CAS: -	5			
Dust, general threshold limit value (respirable fraction) CAS: -	15			

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

Occupational Exposure Controls

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.

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.

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 dust filter. 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, EN or other applicable national standards.

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	
< 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	128 °C
Boiling point/range	208,5 °C @ 1013 hPa
Flash point	107 °C
Method	closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Lower explosion limit	1,1 Vol %
Upper explosion limit	11,4 Vol %

Vapour pressure

Values [hPa]	Values [kPa]	Values [atm]	@ °C	@ °F	Method
0,03***	0,003***	< 0,001	20	68	OECD 104***
6,9	0,69	0,007	90	194	OECD 104***
88	8,8	0,087	140	284	OECD 104***

Vapour density No data available

Relative density

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

Solubility 830 g/l @ 20 °C, in water
log Pow 0 @ 25 °C (77 °F), OECD 117***
Autoignition temperature 375 °C
Decomposition temperature No data available
Viscosity 6,43 mPa*s @ 139 °C
Method dynamic
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

9.2. Other information

Molecular weight 104,15
Molecular formula C5 H12 O2
Minimum ignition energy 150 mJ < E min. < 260 mJ with inductivity
log Koc 0,019 @ 25°C (77 °F) calculated***
Bulk density ~ 500 kg/m³ @ 20 °C (68 °F)
Surface tension 72 mN/m (1 g/l @ 20°C (68°F)), 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.

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

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 (8 h)***	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	4h
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	NOAEL: 1000 mg/kg/d***	rat, male/female	OECD 408	Oral
Subacute toxicity	NOAEL: 300 mg/kg/d***	rat, male***	OECD 422***	Inhalation Oral***

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		CHO (Chinese Hamster Ovary) cells***	negative	OECD 476 (Mammalian Gene Mutation)	In vitro study
Mutagenicity		CHL	negative	Chromosomal Aberration	In vitro study
Reproductive toxicity***	NOAEL 1000 mg/kg/d	rat***		OECD 422, Oral	Reproduction / developmental Toxicity***
Developmental Toxicity***	NOAEL 1000 mg/kg/d	rat***		OECD 414	Maternal toxicity Developmental toxicity***

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
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
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://echa.europa.eu/information-on-chemicals/registered-substances.

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
80-90 % (28*** d), activated sludge, domestic, aerobic, non-adapted, Readily biodegradable, 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 (126-30-7)		
Type	Result	Method
log Pow	0 @ 25 °C (77 °F)***	OECD 107***
BCF	< 9	OECD 305 C

12.4. Mobility in soil

2,2-Dimethylpropane-1,3-diol (126-30-7)		
Type	Result	Method
Distribution to environmental compartments	Air: 0,001 Soil: 0,0627 % Water: 99,9 % Sediment: 0,001%, Suspended sediment: < 0,001% Biota: < 0,001%***	Calculation according Mackay, Level I
Adsorption/Desorption	log koc: 0,019 @ 25 °C (77 °F)***	calculated***
Surface tension	72 mN/m (1 g/l @ 20°C (68°F))	OECD 115

12.5. Results of PBT and vPvB assessment

2,2-Dimethylpropane-1,3-diol, CAS: 126-30-7
PBT and vPvB assessment
This substance is not considered to be persistent, bioaccumulating nor toxic (PBT), nor very persistent nor very bioaccumulating (vPvB)

12.6. Other adverse effects

2,2-Dimethylpropane-1,3-diol, CAS: 126-30-7
No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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.
Hazardous waste according to European Waste Catalogue (EWC)

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

ADR/RID	Not restricted
ADN	ADN Container Not restricted
ICAO-TI / IATA-DGR	Not restricted
IMDG	Not restricted
14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code	not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulation 1272/2008, Annex VI
not listed

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)

National regulatory information Egypt

Banned Chemicals (Unified List of Hazardous Substances, List A)
not listed

Substances Requiring Permits (Unified List of Hazardous Substances, List B)
not listed

Non-Restricted Substances (Unified List of Hazardous Substances, List C)
not listed

National regulatory information Israel

Harmful Chemicals (Hazardous Substances Law, 5753-1993, Annex 1
not listed

Toxic Chemicals (Hazardous Substances Law, 5753-1993, Annex 2
not listed

Hazardous materials requiring annual testing (Labor Inspection Regs., Appendix 1)
not listed

Hazardous Substances Regulations (Classification & Exemptions)
not listed

National regulatory information South Africa

Group 1 Hazardous Substances (G.N.R 452)
not listed

National regulatory information United Arab Emirates

Prohibited and restricted imports (Ministry of Environment and Water)
not listed

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

SECTION 16: Other information

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

H318: Causes serious eye damage.

Abbreviations
A table of terms and abbreviations can be found under the following link:
http://echa.europa.eu/documents/10162/13632/information_requirements_r20_en.pdf

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 OQ owned data and public sources deemed valid or acceptable. The absence of data elements required by OSHA, 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 OQ homepage (www.chemicals.oq.com).

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End of Safety Data Sheet