Safety Data Sheet
Neopentylglycol flakes

1. Identification

Product identifier used on the label

Neopentylglycol flakes

Recommended use of the chemical and restriction on use
Recommended use*: for industrial use only; industrial chemicals

* The “Recommended use” identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:
Silver Fern Chemical, Inc.
2226 Queen Anne Avenue North, Suite B
Seattle, WA 98109, USA

Telephone: 1-866-282-3384, Customer Service: info@silverfernchemical.com
Website: www.silverfernchemical.com

24 Hour Emergency telephone number
Infotrac: 1-800-535-5053 (USA and Canada) - Outside USA and Canada 1-352-323-3500

Other means of identification

Molecular formula:	C(5)H(12)O(2)
Chemical family:	diols
Synonyms:	2,2-Dimethyl-1,3-Propanediol

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Eye Dam./Irrit.	1	Serious eye damage/eye irritation

Label elements

Pictogram:

Signal Word:
Danger

Hazard Statement:
H318 Causes serious eye damage.

Precautionary Statements (Prevention):
P280 Wear eye/face protection.

Precautionary Statements (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 or doctor/physician.

Hazards not otherwise classified

See section 12 - Results of PBT and vPvB assessment.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

CAS Number	Weight %	Chemical name
126-30-7	>= 99.0 - <= 100.0%	2,2-dimethylpropane-1,3-diol

4. First-Aid Measures

Description of first aid measures

General advice:
Remove contaminated clothing.

If inhaled:
Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Seek medical attention.

If on skin:
Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.

If in eyes:
In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Immediate medical attention required.

If swallowed:
Rinse mouth thoroughly with water, seek medical attention. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further symptoms are possible

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray, alcohol-resistant foam, dry powder, carbon dioxide

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
nitrogen oxides, carbon oxides
The substances/groups of substances mentioned can be released in case of fire. Under certain conditions in case of fire other hazardous combustion products may be generated.

Advice for fire-fighters

Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:
Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear appropriate respiratory protection. Use personal protective clothing. Ensure adequate ventilation.

Environmental precautions

Discharge into the environment must be avoided.

Methods and material for containment and cleaning up

Ensure adequate ventilation. Spills should be contained and placed in suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling

Ensure thorough ventilation of stores and work areas. Avoid the formation and deposition of dust. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift.

Protect against moisture. Avoid the formation and deposition of dust.

Protection against fire and explosion:
Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities
Segregate from alkalies and alkalizing substances.

Suitable materials for containers: Low density polyethylene (LDPE), Stainless steel 1.4301 (V2), Stainless steel 1.4401, glass, High density polyethylene (HDPE)

Further information on storage conditions: Keep container dry. Protect against moisture.

Storage stability:
Protect against moisture.

8. Exposure Controls/Personal Protection

No occupational exposure limits known.

Advice on system design:
Provide local exhaust ventilation to control dust.

Personal protective equipment

Respiratory protection:
Wear a NIOSH-certified (or equivalent) particulate respirator.

Hand protection:
Chemical resistant protective gloves, Suitable materials, butyl rubber, Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:
Tightly fitting safety goggles (chemical goggles).

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures:
Wear protective clothing as necessary to minimize contact. Avoid inhalation of dust. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Form:	flakes	
Odour:	mild, of peppermint oil	
Odour threshold:	not applicable	
Colour:	colourless	
pH value:	4 - 7 (5 %(m))	
melting range:	127.5 - 129.6 °C	(measured)
Boiling range:	207 - 212 °C (760 mmHg)	
Flash point:	98 °C	(closed cup)

Flammability:	not flammable	(Directive 92/69/EEC, A.10)
Lower explosion limit:	For solids not relevant for classification and labelling.	
Upper explosion limit:	For solids not relevant for classification and labelling.	
Vapour pressure:	95 mmHg (149 °C)	
Density:	1.064 g/cm3 (20 °C) Literature data.	(other)
Relative density:	1.066	
Bulk density:	510 - 570 kg/m3	
Vapour density:	not applicable	
Partitioning coefficient n-octanol/water (log Pow):	-0.15 (25 °C)	(OECD Guideline 107)
Self-ignition temperature:	Based on its structural properties the product is not classified as self-igniting. 375 °C Literature data.	
Thermal decomposition:	No decomposition if correctly stored and handled.	
Viscosity, dynamic:	not applicable, the product is a solid	
Viscosity, kinematic:	not applicable, the product is a solid	
Particle size:		(134001)
	D10 102 µm	(134001)
	D50 702 µm	(134001)
	D90 1508 µm	(134001)
Solubility in water:	830 g/l (20 °C)	
Molar mass:	104.15 g/mol	
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.	

10. Stability and Reactivity

Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:
Corrosive effects to metal are not anticipated.

Oxidizing properties:
not fire-propagating

Formation of flammable gases:	Remarks:	Forms no flammable gases in the presence of water.

Chemical stability
The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions
No hazardous reactions known.

Conditions to avoid
See MSDS section 7 - Handling and storage.

Incompatible materials
oxidizing agents, alkali or alkaline-earth metal

Hazardous decomposition products

Decomposition products:
Hazardous decomposition products: carbon monoxide, carbon dioxide

Thermal decomposition:
No decomposition if correctly stored and handled.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity
Assessment of acute toxicity: Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. The inhalation of a highly enriched/saturated vapor-air-mixture represents an unlikely acute hazard.

Oral
Type of value: LD50
Species: rat (male/female)
Value: 6,920 mg/kg (BASF-Test)

Inhalation
Species: rat (male/female)
Value: (IRT)
Exposure time: 8 h
No mortality within the stated exposition time as shown in animal studies.

Dermal
Type of value: LD50
Species: guinea pig
Value: > 4,000 mg/kg (Limit test)

Assessment other acute effects
Assessment of STOT single:
Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Irritation / corrosion
Assessment of irritating effects: Not irritating to the skin. May cause severe damage to the eyes.

Skin
Species: rabbit
Result: non-irritant
Method: OECD Guideline 404

Eye
Species: rabbit
Result: Risk of serious damage to eyes.
Method: OECD Guideline 405

Sensitization
Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Mouse Local Lymph Node Assay (LLNA)
Species: mouse
Result: Non-sensitizing.
Method: OECD Guideline 429

Aspiration Hazard
not applicable

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: The substance may cause damage to the kidney after repeated ingestion of high doses, as shown in animal studies.

Genetic toxicity
Assessment of mutagenicity: The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Carcinogenicity
Assessment of carcinogenicity: No data available concerning carcinogenic effects. Study scientifically not justified.

Reproductive toxicity
Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect.

Teratogenicity
Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies.

Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further symptoms are possible

12. Ecological Information

Toxicity

Aquatic toxicity
Assessment of aquatic toxicity:
There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish
LC50 (48 h) > 10,000 mg/l, Oryzias latipes (JIS K 0102-71, semistatic)

Nominal concentration.

Aquatic invertebrates
EC50 (48 h) > 500 mg/l, Daphnia magna (Directive 79/831/EEC, static)
Nominal concentration.

Aquatic plants
EC50 (72 h) > 500 mg/l, Scenedesmus subspicatus (DIN 38412 Part 9, static)
Nominal concentration.

Chronic toxicity to fish
Study scientifically not justified.

Chronic toxicity to aquatic invertebrates
No observed effect concentration (21 d) > 1,000 mg/l, Daphnia magna (other, static)

Assessment of terrestrial toxicity
Study scientifically not justified.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms
ETAD fermentation tube test aquatic
activated sludge, domestic/Toxic limit concentration (24 h): 2,000 mg/l

Persistence and degradability

Assessment biodegradation and elimination (H2O)
Readily biodegradable (according to OECD criteria). Easily eliminated from water.

Elimination information

70 - 80 % CO2 formation relative to the theoretical value (28 d) (OECD 301B; ISO 9439; 92/69/EEC, C.4-C) (aerobic, activated sludge, domestic, non-adapted)

> 90 % COD reduction (11 d) (OECD Guideline 302 B) (aerobic, activated sludge)

Assessment of stability in water
In contact with water the substance will hydrolyse slowly.

Bioaccumulative potential

Assessment bioaccumulation potential
Does not accumulate in organisms.

Bioaccumulation potential
Bioconcentration factor: < 9 (42 d), Cyprinus carpio (OECD Guideline 305 C)
Does not significantly accumulate in organisms.

Mobility in soil

Assessment transport between environmental compartments
The substance will not evaporate into the atmosphere from the water surface.
Adsorption to solid soil phase is not expected.

Additional information

Sum parameter

Theoretical Oxygen Demand (ThOD): (calculated) 2,151 mg/g

13. Disposal considerations

Waste disposal of substance:
Do not discharge substance/product into sewer system. Dispose of in accordance with national, state and local regulations.

Container disposal:
Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport Information

Land transport
USDOT

Not classified as a dangerous good under transport regulations

Sea transport
IMDG

Not classified as a dangerous good under transport regulations

Air transport
IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:
Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Acute;

NFPA Hazard codes:
Health : 3 Fire: 1 Reactivity: 0 Special:

Assessment of the hazard classes according to UN GHS criteria (most recent version):

Eye Dam./Irrit.	1	Serious eye damage/eye irritation

16. Other Information

The information on this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use or disposal of this product, If the product is used as a component in another product, this SDS information many not be applicable.