

Safety data sheet as per Commission Regulation (EU) 2020/878

Product: 1,6-Hexanediol



◆ SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name	1,6-Hexanediol
Chemical Name	Hexane-1,6-diol/ 1,6-Hexamethylene glycol/1,6-dihydroxyhexane/ HDO
CAS Number	629-11-8
EC Number	211-074-0
Nanoform	No nanoforms

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

Relevant identified uses	Industrial use: Construction chemicals, manufacture of polymers, paints, coatings, plasters, elastomers; as an intermediate Professional use: Used in paints, plasters, laboratory chemicals, in cleaners and auxiliary agents, road and construction applications Consumer use: Used in paints, inks, lacquers, synthetic resins, construction chemicals, auxiliary agents, personal hygiene products, plasters
Uses identified against	Not for use other than those reported

1.3 Details of the supplier of the safety data sheet:

Manufacturer	Prasol Chemicals Limited
Head Office	Prasol House, Plot No.A-17/2/3, T.T.C. Industrial Area, Khairne M.I.D.C., Navi Mumbai - 400 710. Maharashtra, India.
Telephone	+91-22-69450600/ 61952500
Telefax	+91-22-61952577
e-mail address	sales@prasolchem.com; inquiry@prasolchem.com

1.4 Emergency telephone number

Telephone	+91-22- 7045783555/ 7045790555
Language	English

◆ SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008

Information concerning particular hazards for human and environment: No further information

2.2 Label elements

Labeling according to Regulation (EC) No 1272/2008 (CLP)

Hazard pictograms	none
Signal word	none
Hazard statements	none

Precautionary statements

General	-
Prevention	P280 Use protective gloves and eye 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.
	P362+P364 Take off contaminated clothing and wash it before reuse.
Storage	-
Disposal	P501 Dispose of contents and container in accordance with national regulations

2.3 Other hazards

Not a PBT, vPVB substance according to the criteria of Annex XIII to REACH regulation

Not having endocrine disruptive properties as per criteria of Delegated Regulations (EC) 2017/2100 or (EC) 2018/605

◆ SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Name	1,6-hexane diol
CAS Number	629-11-8
EC Number	211-074-0
Molecular Formula	C ₆ H ₁₄ O ₂
Molecular Weight	118.06

Ingredient	Classification	Concentration (%)	SCL, M-factor, ATE
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1,6-hexane diol

Not classified

99 - 100

Not assigned

3.2 Mixtures not applicable

None of the ingredients present are classified as skin sensitisers 1A, respiratory sensitisers 1A, aspiration hazards and endocrine disruptors.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General information

Take off all contaminated clothing immediately.

After inhalation

If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If unconscious, evaluate the need for artificial respiration. Get immediate medical attention

After skin contact

Wash off with plenty of water immediately, seek medical advice if necessary.

After eye contact

Rinse with plenty of water immediately and seek medical advice.

After swallowing

Do not induce vomiting and seek medical advice immediately.

4.2 Most important symptoms and effects, both acute and delayed

No significant reaction of the human body to the product known

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

CO₂, dry powder, foam or water spray

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

May form toxic carbon oxides if burning.

Closed container may rupture if strongly heated.

5.3 Advice for firefighters

Cool closed containers exposed to fire with water spray.

Wear self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Use personal protective equipment.

Avoid breathing vapours, mist or gas.

Ensure adequate ventilation

Protective equipment: Gloves, Face shield, Protective clothing.

Emergency procedures: Mark the danger area. No naked flames. Wash contaminated clothes.

For emergency responders

Protective equipment: Equip cleanup crew with proper protection.

Emergency procedures: Ventilate area.

6.2 Environmental precautions

Do not allow to enter sewers, surface or ground water.

6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste.

Keep in suitable, closed containers for disposal.

Suitable binder: sand

6.4 Reference to other sections

Section 8 for information on personal protection equipment.

Section 13 for disposal information

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust. Avoid inhalation of dust.

Protective measures

Measures to prevent fire: Keep away from naked flames/heat. Use spark-/explosion proof appliances.

Measures to prevent aerosol and dust generation: Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Thoroughly clean/dry the installation before use.

Measures to protect the environment: Keep container tightly closed. If possible, use material transfer, metering and blending plants that are closed.

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Advice on general occupational hygiene

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7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions	Keep only in the original container in a cool, well ventilated place away from ignition sources and incompatible materials. Keep container closed when not in use Follow normal measures for preventive fire protection.
Packaging material	Paper bags or HDPE drum
Incompatibility	None identified
Storage	Store in a cool place. Keep container tightly closed in a dry and well-ventilated place. Mechanical exhaust required.
Advice on common storage	Observe prohibition against storing together!
Storage stability	Stable under recommended storage conditions
Storage class	13: Non combustible solids
7.3 Specific end use(s)	No further relevant information available

◆ SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

No exposure limit has been reported

DNEL/DMEL (Workers)

Acute - local effects, inhalation	no hazard identified
Long-term - systemic effects, dermal	10 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	35 mg/m ³
Long-term - local effects, inhalation	no hazard identified

DNEL/DMEL (General population)

Acute - local effects, inhalation	no hazard identified
Long-term - systemic effects, oral	5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	8.7 mg/m ³
Long-term - systemic effects, dermal	5 mg/kg bodyweight/day
Long-term - local effects, inhalation	no hazard identified

PNEC (Water)

PNEC aqua (freshwater)	0.5 µg/l
PNEC aqua (marine water)	0.05 µg/l

PNEC (Sediment)

PNEC sediment (freshwater)	1.05 µmg/kg dwt
PNEC sediment (marine water)	0.105 µg/kg dwt

PNEC (Soil)

PNEC soil	0.076µg/kg dwt
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PNEC (STP)

PNEC sewage treatment plant	8400 mg/l
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8.2 Exposure controls

Appropriate engineering controls If possible, use material transfer, metering and blending plants that are closed

Personal protective equipment

For eye/ face protection closed goggles, face shield

For skin protection

Hand protection	Type of material	Thickness	Breakthrough time
	Nitrile-rubber	0.11 mm	> 480 min

Body protection Boots, body suit

For respiratory protection Respiratory equipment with suitable filter or a self-contained respiratory apparatus.

Thermal hazards None reported

For Environmental exposure Avoid contact with skin and eyes.
Remove immediately all contaminated clothing.
Keep working clothes separately.
Smoking, eating and drinking should be prohibited in the application area.

◆ SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Solid
Color	white
Odour	Odourless
Odour threshold	not applicable
Melting point	38-42°C

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Boiling point	250°C
Flammability (solid, gas)	not readily flammable
Lower and upper explosion limit	6.6 – 16.0% v/v
Flash point	136°C (Open cup)
Ignition temperature	320°C
Decomposition temperature	no data available
pH	5.7 at 500 g/l at 20 °C
Viscosity	61 mm ² /s at 43°C
Relative density	0.96 at 20°C
Solubility in water	1000 g/l at 20°C, miscible
Partition coefficient	log Kow (n-octanol/water) = 0 at 20°C
Vapour pressure	0.000666 hPa at 25°C
Vapour density	no data available
Particle characteristics	Not a nanomaterial/ nanoform
9.2 Other information	
Explosive properties	no explosive properties
Oxidizing properties	no oxidizing properties
Evaporation rate	no data available
Heat of combustion	-3999.8 kJ/kg
Heat of vaporization	98.5 kJ/mol

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	No hazardous reaction when handled and stored according to provisions.
10.2 Chemical stability	Under storage at normal ambient temperatures (-40°C to +40°C), the product is stable.
10.3 Possibility of hazardous reactions	No known hazardous reactions if used as directed
10.4 Conditions to avoid	Avoid excessive heat and sources of ignition
10.5 Incompatible materials	strong bases, strong acids
10.6 Hazardous decomposition products	Thermal decomposition products- carbon oxides

◆ SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity				
LD50	oral	rat	3000 mg/kg bw	practically non-toxic
LC50	inhalation	rat	8h, 3.3 mg/m ³	practically non-toxic
LD50	Dermal	rabbit	>2500 mg/kg bw	practically nontoxic
Skin irritation				
non-irritating 8d (rabbit)				
Serious eye irritation				
non-irritating 5d (rabbit)				
Respiratory or skin sensitization				
No sensitizing effects known				
Germ cell mutagenicity				
non mutagenic (Ames test)				
Carcinogenicity				
non carcinogenic				
Reproductive toxicity				
no adverse effect on reproduction (rat)				
STOT-single exposure				
non-irritating				
STOT-repeated exposure				
not classified as specific target organ toxicant				
Aspiration hazard				
no data available				

11.2 Information on other hazards

Endocrine disrupting properties	No endocrine disrupting properties
Other information	No further information

◆ SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity

Toxicity to fish	LC50	96h	4.64-10.00mg/L	<i>Leuciscus idus</i>
Toxicity to aquatic invertebrates	EC50	48h	>500 mg/L	<i>Daphnia magna</i>
Toxicity to aquatic algae and cyanobacteria	EC50	72h	5940 mg/L	<i>Desmodesmus subspicatus</i>
Toxicity to microorganisms	EC50	17h	>10000mg/L	<i>Pseudomonas putida</i>

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12.2 Persistence and degradability

Biodegradation

readily biodegradable (95% in 28days)

12.3 Bioaccumulative potential

very low potential for bioaccumulation

12.4 Mobility in soil

Koc = 1, log Koc = 0; very low potential for geoaccumulation

12.5 Results of PBT and vPvB assessment

Not a PBT, vPvB substance according to the REACH regulation

12.6 Endocrine disrupting properties

No endocrine disrupting properties

12.7 Other adverse effects

No further information available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Observe all national, state and local environmental regulations.

Product disposal

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Packaging disposal

Clean container with water. Recover waste water for processing later. Destroy packaging by incineration at an approved waste disposal site.

Sewage disposal

Do not dispose in sewage.

SECTION 14: TRANSPORT INFORMATION

ADR/RID

IMDG

ICAO/IATA

14.1 UN Number

Not applicable (not hazardous for transport)

14.2 UN proper shipping name

Not applicable (not hazardous for transport)

14.3 Transport hazard class

Not applicable (not hazardous for transport)

14.4 Packaging group

Not applicable (not hazardous for transport)

14.5 Environmental hazards

not environmentally hazardous, not a marine pollutant

14.6 Special precautions for the user

no further information

14.7 Maritime transport in bulk according to IMO instruments

Ship type: 3; Pollution Category: Y

SECTION 15: REGULATORY INFORMATION

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

Major accident hazard

Seveso III

none

International Chemical Inventory Status

USA (TSCA)

Listed (Tracking No. 64626)

Canada (DSL)

listed

Australia (AICS)

listed

Japan (MITI)

Listed (MITI No. 2-240)

Korea (KECL)

Listed (KE-19689)

Philippines (PICCS)

listed

China (IECSC)

listed

New Zealand (NZIoC)

listed

Taiwan (TCSI)

listed

15.2 Chemical safety assessment

A Chemical Safety Assessment will be carried out at the time of REACH registration

SECTION 16: OTHER INFORMATION

◆ **Indication of changes:** Sections in which changes have been made since the last version are marked with a diamond ◆ in the left hand margin.

Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
AICS	Australian Inventory of Chemical Substances
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service (division of the American Chemical Society)
CLP	Classification for Labeling and Packaging
DMEL	Derived minimal effect level
DNEL	Derived No-Effect Level
DSL	Domestic Substances List
EC	European Commission
EC50	Half maximal effective concentration
EINECS	European Inventory of Existing Commercial Chemical Substances

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GHS	Globally Harmonized System of Classification and Labeling of Chemicals
IATA	International Air Transport Association
IBC	International Bulk Chemical
ICAO	International Civil Aviation Organization
IMDG	International Maritime Code for Dangerous Goods
KECL	Korea Existing Chemicals List
KOC	Soil adsorption coefficient
KOW	Partition Coefficient octanol-water
LC50	Lethal concentration, 50 percent
LD50	Lethal dose, 50 percent
M-factor	Multiplication Factor
MITI	Ministry of International Trade and Industry
PBT	Persistent, bioaccumulative and toxic substances
PICCS	Philippine Inventory of Chemicals and Chemical Substances
PNEC	Predicted No-Effect Concentration
RID	Regulations Concerning the International Transport of Dangerous Goods by Rail
SCL	Specific concentration limit
STOT	Specific target organ toxicity
TSCA	Toxic Substances Control Act
UN	United Nations
vPVB	(very) Persistent, (very) Bioaccumulative

Key literature references and sources for data

Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

ECHA <https://echa.europa.eu/registration-dossier/-/registered-dossier/15109>

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--End of safety data sheet--