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

1.1. Product identifier

Product Name **1,6-Hexanediol**

Chemical Name	CAS No	EC No	REACH registration number
Hexane-1,6-diol	629-11-8	211-074-0	01-2119449814-31

Pure substance/mixture Substance

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

Industrial Manufacture of substances. Formulation and (re)packing of substances and mixtures. Distribution and storage. Industrial manufacturing: of polymers including resins, of oligomers. Use: in elastomers, in plaster, in construction chemicals.

Professional Road and construction applications. Laboratory chemicals. Use: in plaster

Consumer Use: in plaster.

Uses advised against Not identified.

1.3. Details of the supplier of the safety data sheet

Manufacturer

Perstorp UK Ltd
Baronet Road
Warrington
Cheshire WA4 6HA
United Kingdom
Tel. +44 (0) 1925 591111
www.perstorp.com

E-mail address productinfo@perstorp.com

1.4. Emergency telephone number

Europe (+)1 760 476 3961 (contract no: 334101)

United Kingdom (+)44 8 08 189 0979 (contract no: 334101)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
This substance is not classified as dangerous according to regulation (EC) 1272/2008 [CLP]

2.2. Label elements

This substance is not classified as dangerous according to regulation (EC) 1272/2008 [CLP]

Symbols/Pictograms
Not applicable

Signal word
None

Hazard statements
Not applicable

Precautionary Statements
Not applicable

2.3. Other hazards
Temperature controlled; 55-70 °C. Contact with product at elevated temperatures can result in thermal burns. May be harmful if swallowed. This substance does not meet the criteria for classification as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical Name	EC No	CAS No	REACH registration number	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hexane-1,6-diol	211-074-0	629-11-8	01-2119449814-31	>97	Not classified

Full text of H- and EUH-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation First aid measures not required, but get fresh air for personal comfort.

Skin contact In case of burns, immediately cool affected skin for as long as possible with cold water. Seek immediate medical attention/advice.

Eye contact After contact with the molten/hot product, cool rapidly with cold water. Seek immediate medical attention/advice.

Ingestion Clean mouth with water. If a large quantity has been ingested or you feel unwell, get medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed
Contact with product at elevated temperatures can result in thermal burns.

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

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media
Water spray (fog), Foam, Carbon dioxide (CO2), Extinguishing powder,

Unsuitable extinguishing media
High volume water jet.

5.2. Special hazards arising from the substance or mixture
Thermal decomposition can lead to release of irritating and toxic gases and vapours. Carbon monoxide (CO), Carbon dioxide (CO2).

5.3. Advice for firefighters
In the event of fire, wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Wear safety glasses, gloves, protective clothing and rubber boots for hygienic reasons. Keep unprotected persons away from molten/hot product if released.

6.2. Environmental precautions
Do not allow into any sewer, on the ground or into any body of water. See Section 12 for additional ecological information.

6.3. Methods and material for containment and cleaning up

Methods for containment
Prevent product from entering drains. Soak up with inert absorbent material.
Methods for cleaning up
Allow material to solidify, and scrape up. Clean contaminated surface thoroughly: Water (with cleaning agent).

6.4. Reference to other sections
See Section 7, 8, 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Wear personal protective equipment according to section 8 if risk of exposure. Design work place in such a way that splashes from hot product is prevented.

General Hygiene Considerations
Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities
The product is: Hygroscopic. Store in a dry place. Store in a closed container. Only store in heated receptacles. Keep at temperatures between 55 and 70 °C.

7.3. Specific end use(s)
This information is supplied in the present Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Exposure Limits
Keep personal exposure levels below Derived No Effect Level (DNEL) and national exposure limit values (if existing).

Derived No Effect Level (DNEL) - worker

Hexane-1,6-diol (629-11-8)			
Type	Exposure route	DNEL	Remarks
Chronic effects, systemic	Inhalation	35	mg/m³
Chronic effects, systemic	Dermal	10	mg/kg bw/d

Derived No Effect Level (DNEL) - Consumer

Hexane-1,6-diol (629-11-8)			
Type	Exposure route	DNEL	Remarks
Chronic effects, systemic	Inhalation	8.7	mg/m³
Chronic effects, systemic	Dermal	5	mg/kg bw/d
Chronic effects, systemic	Oral	5	mg/kg bw/d
Acute effects, systemic	Oral	21	mg/kg bw/d

Predicted No Effect Concentration (PNEC)

Hexane-1,6-diol (629-11-8)		
Environmental compartment	Predicted No Effect Concentration (PNEC)	Remarks
Freshwater	0.5	mg/l
Freshwater sediment	1.05	mg/kg dry weight
Marine water	0.05	mg/l
Marine sediment	0.105	mg/kg dry weight
Impact on Sewage Treatment	8400	mg/l
Soil	0.076	mg/kg dry weight

8.2. Exposure controls
Appropriate engineering controls

None under normal use conditions.

Individual protection measures, such as personal protective equipment

Eye/face protection	If handled where risk of splashes may occur, use safety goggles.
Hand Protection	Wear chemical resistant and heat resistant impervious gloves preferably covering the forearm.
Skin and body protection	If any risk of getting in contact with hot product - use heat-resistant protective clothing.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Environmental exposure controls
Do not allow into any sewer, on the ground or into any body of water.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance
Solid (wax) or Melt
colourless

Odour Odourless
Odour threshold No information available

Property	**Value**	**Remarks • Method**
pH	5.7	
Melting point / freezing point	40-42 °C	
Boiling point / boiling range	253-260 °C	
Flash point	140 °C	CC (closed cup)
Evaporation rate		No information available
Flammability (solid, gas)		Not applicable
Explosive limits		
Upper explosive limits		No data available
Lower explosive limits		No data available
Vapour pressure	0.001 hPa	@ 25 °C
Vapour density		No information available
Relative density	0.96	@ 20 °C
Water solubility	1000 g/l	@ 20 °C
Solubility(ies)		No information available
Partition coefficient	0	OECD Test No. 107: Partition Coefficient (n-octanol/water): Shake Flask Method
Autoignition temperature	320 °C	
Decomposition temperature		No information available
Kinematic viscosity		No information available
Dynamic viscosity	61 mPa s	@ 43 °C
Explosive properties	Not explosive.	
Oxidising properties	Not oxidising.	
Density		No information available
Bulk density		No information available

9.2. Other information
No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity
There exists no specific test data for this product. For further information, see the subsequent subsections of this chapter.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
None known.

10.4. Conditions to avoid
None known.

10.5. Incompatible materials
None known.

10.6. Hazardous decomposition products
Thermal decomposition can lead to release of irritating and toxic gases and vapours; Carbon monoxide (CO), Carbon dioxide (CO2)

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure
Dermal.

Symptoms related to the physical, chemical and toxicological characteristics
See Section 4 for more information.

Numerical measures of toxicity

Acute toxicity
May be harmful if swallowed.

Hexane-1,6-diol (629-11-8)				
Method	Species	Exposure route	Effective dose	Remarks
OECD Test No. 401: Acute Oral Toxicity	Rat	Oral	ca 3000	LD50 (lethal dose) mg/kg
OECD Test No. 402: Acute Dermal Toxicity	Rabbit	Dermal	> 2500	LD0 mg/kg
OECD Test No. 403: Acute Inhalation Toxicity	Rat	Inhalation	3.3	LC0 8h, mg/l

Skin corrosion/irritation
Non-irritating to the skin.

Hexane-1,6-diol (629-11-8)			
Method	Species	Exposure route	Results:
Unknown	Rabbit	Dermal	Non-irritating to the skin

Serious eye damage/eye irritation
Non-irritant.

Hexane-1,6-diol (629-11-8)			
Method	Species	Exposure route	Results:
OECD Test No. 405: Acute Eye Irritation/Corrosion	Rabbit	Eye	The substance was non-irritant

Respiratory or skin sensitisation
Not a skin sensitiser.

Hexane-1,6-diol (629-11-8)			
Method	Species	Exposure route	Results:
Regulation (EC) No. 440/2008, Annex, B.6	Guinea pig	Skin	Not sensitising.

Germ cell mutagenicity
Not mutagenic.

Hexane-1,6-diol (629-11-8)		
Method	Species	Results:
OECD Test No. 471: Bacterial Reverse Mutation Test	in vitro	Negative
OECD Test No. 473: In vitro Mammalian Chromosome Aberration Test	in vitro	Negative
OECD Test No. 476: In vitro Mammalian Cell Gene Mutation Test	in vitro	Negative

Carcinogenicity
There is no indication for any carcinogenic potential since all in vitro mutagenicity studies are negative.

Reproductive toxicity
No impairment of fertility has been observed. No embryotoxic or teratogenic effects have been observed.

Hexane-1,6-diol (629-11-8)				
Method	Species	Exposure route	Effective dose	Remarks
OECD Test No. 421: Reproduction/Developmental Toxicity Screening Test	Rat	Oral	1000	(P), NOAEL mg/kg bw/d
OECD Test No. 421: Reproduction/Developmental Toxicity Screening Test	Rat	Oral	1000	(F1), NOAEL mg/kg
OECD Test No. 414: Pre-natal Development Toxicity Study	Rat	Oral	10000	NOAEL mg/kg bw/d no maternal toxicity
OECD Test No. 414: Pre-natal Development Toxicity Study	Rat	Oral	1000	NOAEL mg/kg bw/d

STOT - single exposure No known effect

STOT - repeated exposure

Hexane-1,6-diol (629-11-8)				
Method	Species	Exposure route	Effective dose	Remarks
OECD Test No. 407: Repeated Dose 28-day Oral Toxicity Study in Rodents	Rat	Oral	1000	NOAEL mg/kg bw/d
OECD Test No. 408: Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	Oral	400	NOAEL mg/kg bw/d body weight
OECD Test No. 408: Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	Oral	1000	NOAEL mg/kg bw/d

Aspiration hazard
No information available.

SECTION 12: Ecological information

12.1. Toxicity
Low toxicity to aquatic organisms.

Hexane-1,6-diol (629-11-8)					
Method	Species	Exposure route	Effective dose	Exposure time	Remarks
DIN 38412, Part 15	Leuciscus idus	Freshwater	4640-10000	96h	LC50 (lethal concentration) mg/l
Regulation (EC) No. 440/2008, Annex, C.2	Daphnia magna	Freshwater	>500	48h	EC50 (effective concentration) mg/l
DIN 38 412, part 9	Scenedesmus subspicatus	Freshwater	5940	72h	EC50 (effective concentration) mg/l
DIN 38412/8	Pseudomonas	Freshwater	>10000	17h	EC50 (effective

	putida				concentration) mg/l

12.2. Persistence and degradability
Readily biodegradable.

Hexane-1,6-diol (629-11-8)			
Method	Value	Exposure time	Results:
OECD Test No. 301C: Ready Biodegradability: Modified MITI Test (I) (TG 301 C)	98%	28h	Readily biodegradable Dissolved organic carbon (DOC)

12.3. Bioaccumulative potential
No bioaccumulation potential.

Chemical Name	**Partition coefficient**	**Bioconcentration factor (BCF)**
Hexane-1,6-diol	0	

12.4. Mobility in soil
The substance is not expected to adsorb to a high degree to suspended solids and sediment based upon the log Pow.

12.5. Results of PBT and vPvB assessment
This substance does not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects
None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste from residues/unused products
The product is not classified as hazardous waste. Incinerate at a licensed installation.

Contaminated packaging
Not applicable.

Waste codes / waste designations according to EWC / AVV
Waste from residues/unused products; 16 03 06.

Other Information
Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

ADR Road transport
14.1 UN number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing Group Not regulated
14.5 Environmental hazard Not applicable
14.6 Special precautions for user None

RID Rail transport
14.1 UN number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing Group Not regulated
14.5 Environmental hazard Not applicable
14.6 Special precautions for user None

IMDG Sea transport

14.1 UN number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing Group	Not regulated
14.5 Marine pollutant	Not applicable
14.6 Special precautions for user	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Z

IATA Air transport

14.1 UN number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special precautions for user	None

SECTION 15: Regulatory information

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

International Regulations
Not applicable.

European Union

Not applicable.

France

Occupational Illnesses (R-463-3, France)	Not applicable

Germany

Water hazard class (WGK)	slightly hazardous to water (WGK 1)

15.2. Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Issue Date	03-Nov-2016
Revision Date	03-Nov-2016
Revision Note	No information available

This safety data sheet complies with the requirements of: Regulation (EC) No. 1907/2006, COMMISSION REGULATION (EU) No. 830/2015 of 20 May 2015.

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End of Safety Data Sheet