GREEN VALLEY LABORATORY

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1 - Identification

1.1 Identification

Product form	Substance
Trade name	Butylene Glycol
Chemical name	1,3 butylene glycol
IUPAC name	butane-1,3-diol
CAS-No.	6290-03-5
Formula	C4H10O2
Synonyms	1,3-Butanediol, butylene glycol; 1,3-Butanediol, BUTANE-1,3-DIOL

1.2 Recommended use and restrictions on use

Use of the substance/mixture	Formulation into cosmetic products Use of cosmetic products by professionals Use in cosmetics, perfumes/fragrances, and personal care products
Recommended restrictions	Not for human consumption

1.3 Details of the supplier of the Safety Data Sheet

Supplier Name	Green Valley Laboratory
Address	435 Hartford Pike, Killingly, CT 06241, USA
Contact	Help@dauphineorganics.com
Phone	n/a

1.4 Emergency telephone number

Emergency Phone No.	CHEMTREC Emergency Call Center +1 800-424-9300 (US & Canada) - +1 703-527-3887 (Europe)

SECTION 2 - Hazard Identification

2.1 Classification of the substance or mixture

GHS US classification	Not classified

2.2 GHS label elements, including precautionary statements

GHS US labeling	No labeling applicable

2.3 Other hazards which do not result in classification

No additional information available

2.4 Unknown acute toxicity (GHS US)

Not applicable

SECTION 3 - Composition / Information on Ingredients

3.1 Substances

Name	Product identifier	%	GHS US classification
Butane-1,3-diol (Main constituent)	(CAS-No.) 6290-03-5	99 - 100	Not classified

3.2 Mixtures

Not applicable

SECTION 4 - First Aid Measures

4.1 Description of first aid measures

After inhalation	Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical advice/attention.
After skin contact	Wash skin with plenty of water and soap. Seek medical attention if irritation develops.
After eye contact	Check for and remove contact lenses. Immediately flush eyes thoroughly with water for at least 15 minutes. Seek medical attention if irritation develops.
After ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth out with water. In all cases of doubt, or when symptoms persist, seek medical attention.

4.2 Most important symptoms and effects (acute and delayed)

Symptoms/effects	Not expected to present a significant hazard under anticipated conditions of normal use.

4.3 Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5 - Fire Fighting Measures

5.1 Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	For small fire: Dry powder. For large fire: Water spray. Water fog. Foam.
Unsuitable extinguishing media	Do not use water jet.

5.2 Specific hazards arising from the chemical

Fire hazard	May be combustible at high temperature.
Explosion hazard	None known.

5.3 Special protective equipment and precautions for fire-fighters

No additional information available

SECTION 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Protective equipment	Use personal protective equipment as required.
Emergency procedures	Evacuate unnecessary personnel.

6.1.2 For emergency responders

Protective equipment	Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	Ventilate area.

6.2 Environmental precautions

Prevent entry to sewers and public waters.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	For small spills: dilute with small amount of water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Large spills: Contain and/or absorb spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Flush residue with large amounts of water. Dispose in a safe manner in accordance with local/national regulations.

6.4 Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of residues refer to section 13: "Disposal considerations".

SECTION 7 - Handling and Storage

7.1 Precautions for safe handling

Precautions for safe handling	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions	Store tightly closed in a dry, cool and well-ventilated place.
Incompatible materials	Strong oxidizing agents. Acid chlorides. Acid anhydrides. Chloroformates. Reducing agents.

SECTION 8 - Exposure Controls / Personal Protection

8.1 Control parameters

BUTANE-1,3-DIOL (6290-03-5)
No additional information available

8.2 Appropriate engineering controls

Appropriate engineering controls	Provide local exhaust or general room ventilation.

8.3 Individual protection measures / Personal protective equipment

Hand protection	Impermeable protective gloves
Eye protection	Use eye protection to EN 166, designed to protect against liquid splashes
Skin and body protection	Wear suitable protective clothing. Chemical resistant suit.
Respiratory protection	Not required for normal conditions of use. In case of insufficient ventilation, wear suitable respiratory equipment. Approved organic vapor respirator

SECTION 9 - Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear.
Color	Colorless
Odor	odorless
Odor threshold	No data available

pH	No data available
Melting point	No data available
Freezing point	< -50 °C at 101.3 kPa
Boiling point	207.5 °C at 101.3 kPa
Flash point	121 °C at 1013 hPa
Relative evaporation rate (butyl acetate=1)	No data available
Flammability (solid, gas)	Not applicable.
Vapor pressure	8 - 10 at 20 °C
Relative vapor density at 20 °C	No data available
Relative density	1.004 - 1.006 g/cm³ at 20 °C
Solubility	Water: ≈ 999800 mg/l at 25 °C
Log Pow	-0.92 - -0.08 at 25 °C
Auto-ignition temperature	395 °C at 1013 hPa
Decomposition temperature	No data available
Viscosity, kinematic	96 - 98 mm²/s (25 °C)
Viscosity, dynamic	No data available
Explosion limits	Not applicable
Explosive properties	Product is not explosive.
Oxidizing properties	Non oxidizing material.

9.2 Other information

No additional information available

SECTION 10 - Stability and Reactivity

10.1 Reactivity

No dangerous reactions known under normal conditions of use.

10.2 Chemical stability

Stable under use and storage conditions as recommended in section 7.

10.3 Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4 Conditions to avoid

No additional information available

10.5 Incompatible materials

Strong oxidizing agents. Acid chlorides. Acid anhydrides. Chloroformates. Reducing agents.

10.6 Hazardous decomposition products

On combustion forms: Carbon oxides (CO, CO2).

SECTION 11 - Toxicological Information

11.1 Information on toxicological effects

Acute toxicity (oral)	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	Not classified (Based on available data, the classification criteria are not met)

BUTANE-1,3-DIOL (6290-03-5)	Result
LD50 oral rat	≈ 22800 mg/kg body weight (results obtained on a similar substance)

Skin corrosion/irritation	Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation	Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitization	Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	Not classified (Based on available data, the classification criteria are not met)

BUTANE-1,3-DIOL (6290-03-5)	Result
NOAEL (chronic, oral, animal/male, 2 years)	≈ 5000 mg/kg body weight rat (results obtained on a similar substance)

Reproductive toxicity	Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	Not classified (Based on available data, the classification criteria are not met)
Viscosity, kinematic	No data available
Likely routes of exposure	Inhalation. Ingestion. Eyes. Skin.
Symptoms/effects	Not expected to present a significant hazard under anticipated conditions of normal use.

SECTION 12 - Ecological Information

12.1 Toxicity

BUTANE-1,3-DIOL (6290-03-5)	Result
LC50 fish 1	> 100 mg/l (based on mortality) (results obtained on a similar substance)
EC50 Daphnia 1	> 1000 mg/l (based on mobility) (results obtained on a similar substance)
NOEC chronic crustacea	85 mg/l 21 d - Daphnia magna (based on reproduction) (results obtained on a similar substance)

12.2 Persistence and degradability

BUTANE-1,3-DIOL (6290-03-5)	Result
Persistence and degradability	Readily biodegradable.

12.3 Bioaccumulative potential

BUTANE-1,3-DIOL (6290-03-5)	Result
Log Kow	≥ -0.92 - ≤ -0.08 at 25 °C
Bioaccumulative potential	No bioaccumulation.

12.4 Mobility in soil

No additional information available

12.5 Other adverse effects

No additional information available

SECTION 13 - Disposal Considerations

13.1 Disposal methods

Waste treatment methods	Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	Handle unclean empty containers as full ones.

SECTION 14 - Transport Information

Department of Transportation (DOT)	In accordance with DOT: Not regulated
Transportation of Dangerous Goods	Not regulated
Transport by sea	Not regulated
Air transport	Not regulated

SECTION 15 - Regulatory Information

15.1 US Federal regulations

The EPA has identified Reproductive Toxicity as a concern, however this is not classifiable based on GHS criteria.

Chemical	CAS-No.	Concentration
Butane-1,3-diol	6290-03-5	100%

15.2 International regulations

CANADA

BUTANE-1,3-DIOL (6290-03-5)
Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3 US State regulations

No additional information available

SECTION 16 - Other Information

Applicable framework	According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Date of issue	02 February 2018
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Data sources	CSR - Chemical Safety Report.
Document basis	SDS US (GHS HazCom 2012)

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