Material Safety Data Sheet

Butyl Glycol (RXSOL-20-2099-210)

1. Product and Company Identifaction

Product Name	RXSOL-20-2099-210
Product Type	Butyl Glycol

Company Details:

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
VASHI ,NEW BOMBAY 400703 INDIA

Stock Point ::: Kolkata, Mumbai, Chennai, Visakhapatanm, Kandla, Fujairah

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Website	**www.rxmarine.com**

2. Composition / informationon ingredients

Chemical Name	CAS Number	EC Number	Index number
Butyl Glycol	111-76-2 2	203-905-0	603-014-00-0

3. Hazards Identification

Hazard description:
Information concerning particular hazards for human and environment:
R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R 36/38 Irritating to eyes and skin.

4. First Aid Measures

General information	Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
After inhalation	Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.In case of unconsciousness place patient stably in side position for transportation.
After skin contact	Immediately wash with water and soap and rinse thoroughly.
After eye contact	Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing	Call for a doctor immediately.

5. Fire-fighting Measures

Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Protective equipment: Mouth respiratory protective device.

6. Accidental Release Measures

Person-related safety precautions: Not required.
Measures for environmental protection: Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.
Measures for cleaning/collecting: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

7. Handling and Storage

Handling:
Information for safe handling: Ensure good ventilation/exhaustion at the workplace.
Information about fire - and explosion protection: No special measures required.
Storage:
Requirements to be met by storerooms and receptacles: No special requirements.
Information about storage in one common storage facility: Not required.
Further information about storage conditions: Keep container tightly sealed.

8. Exposure controls and personal protection

Additional information about design of technical facilities: No further data; see item 7.

Ingredients with limit values that require monitoring at the workplace:

111-76-2 2-butoxyethanol

PEL (USA)	240 mg/m³, 50 ppm Skin
REL (USA)	24 mg/m³, 5 ppm Skin 97 mg/m³, 20 ppm Short-term value: 246 mg/m³, 50 ppm Long-term value: 98 mg/m³, 20 ppm Skin
TLV (USA)	Short-term value: 50 ppm Long-term value: 25 ppm
WEL (Great Britain)	

Additional information: The lists valid during the making were used as basis.
Personal protective equipment:
General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.
Respiratory protection: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
Protection of hands: Protective gloves The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Material of gloves: The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material:
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection: Tightly sealed goggles

9. Physical and chemical properties

Typical Physical Properties
These properties are typical but do not constitute specifications.

Molecular weight (g/mol)		118.2
Boiling point @ 760 mmHg, 1.01 bar	340°F	171°C
Flash point	149°F	65°C
Freezing point	-107°F	-77°C
Vapor pressure@ 20°C — extrapolated		0.66 mmHg 0.89 mbar
Specific gravity (25/25°C)		0.901

Density @ 20°C @ 25°C	7.53 lb/gal 7.49 lb/gal	0.902 g/cm³ 0.898 g/cm³	
Viscosity (cP or mPa•s @ 25°C)		2.9	
Surface tension (dynes/cm or mN/m @ 25°C)		27.4	
Specific heat (J/g/°C @ 25°C)		2.38	
Heat of vaporization (J/g) at normal boiling point		348	
Net heat of combustion (kJ/g) — predicted @ 25°C		30.0	
Autoignition temperature	471°F		224°C
Evaporation rate	n-butyl acetate = 1.0) (diethyl ether = 1.0)	0.079 154	
Solubility, g/100 g @ 25°C Solvent in water Water in solvent			
Hansen solubility parameters (J/cm³)1/2 _d (Dispersion) _p (Polar) _h (Hydrogen bonding)		 16.0 7.6 12.3	
		1.13 10.60	
Flammable limits (vol.% in air)Lower (measured @ 170°C) Upper (measured @ 180°C)			

10. Stability and reactivity

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Dangerous reactions No dangerous reactions known.
Dangerous decomposition products: No dangerous decomposition products known.

11. Toxicological information

Acute toxicity:

LD/LC50 values relevant for classification:

Oral	LD50	1480 mg/kg (rat)
Dermal	LC50	400 mg/kg (rab)

Primary irritant effect:

on the skin	Irritant to skin and mucous membranes.
on the eye	Irritating effect.
Sensitization	No sensitizing effects known.

12. Ecological information

General notes: Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13. Disposal considerations

Product:
Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.
Recommended cleansing agents: Water, if necessary together with cleansing agents.

14. Transport information

Land transport ADR/RID (cross-border)
• ADR/RID class: -

15. Regulatory information

Labelling according to EU guidelines:
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
• Risk phrases:
20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
36/38 Irritating to eyes and skin.
• Safety phrases:
2 Keep out of the reach of children.
36/37 Wear suitable protective clothing and gloves.
46 If swallowed, seek medical advice immediately and show this container or label.

16. Other information

This information is based on our present knowledge.However, this shall not constitute a guarantee for anys pecific product features and shall not establish a legally valid contractual relationship.

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