Produc	ct Name			RXSOL-19-1570-210
Produc	ct Type			Iso Butanol
Company Details:				
RX MARINE INTERNATIONAL 105, A wing , BSEL , TECH PARK. VASHI ,NEW BOMBAY 400703 INDIA				
Stock Point : Mumbai, Kandla, Kolkata, Chenna	ai, Fujairah, Muscat, Nairobi, Vis	sakhapatnam		
Phone +91 22 65113333 / 5555 / s mail@rxmarine.com Website <u>ww</u>	9999 / 27815540 Fax w.rxmarine.com	+91 22 2781 1:	318 :::AOH :0091 9821214367	Email
Chemical Name				
CAS Number				
EC Number				
Index number				
Butanol				

78-83-1

201-148-0

Hazard description:
Information concerning particular hazards for human and environment:
R 10 Flammable.
R 37/38 Irritating to respiratory system and skin.
R 41 Risk of serious damage to eyes.
R 67 Vapours may cause drowsiness and dizziness.
After inhalation
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. Then consult a doctor.
After swallowing
If symptoms persist consult doctor.

Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents: Water with full jet

Protective equipment: No special measures required.

Person-related safety precautions: Wear protective equipment. Keep unprotected persons away. Measures for environmental protection: Do not allow to enter sewers/ surface or ground water. Measures for cleaning/collecting: Dilute with plenty of water. Ensure adequate ventilation.

Handling:

Information for safe handling: No special requirement Information about fire - and explosion protection: Keep ignition sources away - Do not smoke. Protect against electrostatic charges.

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.

 $\label{lem:continuous} \textbf{Additional information about design of technical facilities: No further data; see item 7.}$

Ingredients with limit values that require monitoring at the workplace: 78-83-1 butanol PEL (USA)

REL (USA) TLV (USA)

WEL (Great Britain) 300 mg/m³, 100 ppm

150 mg/m³, 50 ppm 152 mg/m³, 50 ppm

Short-term value: 231 mg/m³, 75 ppm Long-term value: 154 mg/m³, 50 ppm

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 skin. 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: 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.

TI	enetration time of glove material: ne exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed. ye protection: Tightly sealed goggles
	General Information
	Form
	Fluid
	Colour
	Colourless
	Odour
	Sweetish
	Change in condition

Meltin	ng point/Melting range					
-108°	С					
Boilin	g point/Boiling range					
108°C						
Flash	point					
24°C						
	Ignition temperature	390°C				
Dang	er of explosion					
Produ	uct is not explosive. How	vever, formation of explo	osive air/vapour mixture	s are possible.		
Density Viscosi	Explosion limits: y at 20°C 0.8016 g/ ity: Dynamic	Lower 1.7 V /cm³ Solubility i 3.95 mPas	ol % Upper in / Miscibility with water	12 Vol % at 20°C 100	Vapour pressure at 2 g/l pH-value (4	20°C 12 hPa 4 g/l) at 20°C 7
Dangero	decomposition / conditions reactions No dangerous decomposition produces	ous reactions known.			ations.	
Oral	Acute toxicity:	LD/LC50 values releva	nt for classification:			

Dermal									
LD50									
LD50									
2460 mg/kg (ra	at)								
3400 mg/kg (ra	abbit)								
Primal	ry irritant effect: eye injury.	on the skin Sensitization		o skin and muc		es. on	the eye	Strong ir	ritant with the
		s 1 (German Regula er, water course or s			slightly hazardo	ous for water C	Oo not allow	undiluted p	product or large
		posed together with endation: Disposal					ige system.		
Land tra	i nsport ADR/RID UN-Number	(cross-border)		ADR/RID class ng group I	3 Flamma	able liquids. Hazard labe	el 3	Danger o	code (Kemler) Description of
goods 1212 I		OBUTYL ALCOHOI		laritime transp	oort IMDG		DG Class	3	UN
Number 1212		abel 3		aging group	III	EMS Nu		F-E,S-D	
Marine pollutan		Proper shipp			OL (ISOBUTYI			transport	ICAO-TI and
ATA-DGR	ICAO/IA ⁻			JN/ID Number	1212 LALCOHOL)	Lal	bel 3		Packaging
group II	Proper	shipping name	IOODUTAN	OL (ISOBUTYI	L ALCOHOL)				

Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

Risk phrases:

10 Flammable.

37/38 Irritating to respiratory system and skin.

41 Risk of serious damage to eyes.

67 Vapours may cause drowsiness and dizziness.

Safety phrases:

- 2 Keep out of the reach of children.
- 7/9 Keep container tightly closed and in a well-ventilated place.
- 13 Keep away from food, drink and animal feedingstuffs.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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.

DISCLAIMER OF LIABILITY: The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or 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 the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.