



Tenax Spa
BRIOTOP

Revision nr. 10
Dated 01/10/08
Printed on 03/10/08
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Safety Data Sheet

1. Identification of the substance / preparation and the Company

1.1 Identification of the substance or preparation

Code: BRIOTOP
Product name: BRIOTOP
Chemical name and synonym: SURFACTANTS WATER SOLUTION

1.2 Use of the substance / preparation

Intended use: CLEANER FOR STONES

1.3 Company identification

Name: Tenax Spa
Full address: Via I Maggio 226
District and Country: 37020 Volargne Italy (VR)
Tel. 045/6860222
Fax 045/6862456

1.4 Emergency telephone

For urgent inquiries refer to: tenax@tenax.it
http://www.tenax.it

2. Hazards Identification

This preparate is not dangerous under 67/548/EEC and 1999/45/EC directives and subsequent amendments. Nevertheless, this preparate contains dangerous substances in concentrations that must be declared in section No. 3 and requires a safety data sheet containing all the information required under the Regulation (EC) 1907/2006 and subsequent amendments.

3. Composition / Information on ingredients

Contains:

Name	Concentration C	Classification
2-BUTOXYETHANOL	1 <= C < 1,5	Xn R 20/21/22 Xi R 36/38
Cas No 111-76-2 CE No 203-905-0 Index No 603-014-00-0		
PROPAN-2-OL	1 <= C < 1,5	R 67 F R 11 Xi R 36
Cas No 67-63-0 CE No 200-661-7 Index No 603-117-00-0		

The complete text of -R- phrases is specified in section 16.



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4. First aid measures

EYES: Irrigate copiously with clean, fresh water for at least 15 minutes. Seek medical advice.

SKIN: Wash immediately with plenty of water. Remove contaminated clothing. If irritation persists, seek medical attention. Wash contaminated clothing before using them again.

INHALATION: Remove to open air. If breathing is irregular, seek medical advice.

INGESTION: Obtain immediate medical attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person.

5. Fire-fighting measures

Allow containers to cool in order to avoid product decomposition and generation of substances which might injure the health and be dangerous for safety reasons. Wear the fire equipment all the time.

6. Accidental release measures

Exclude sources of ignition. Cover with inert absorbent material. Collect spillages by means of sparkproof equipment. Use water only to remove residuals, so as not to run the risk of entering the sewer.

Do not let the product dry. Contaminated clothes must be left to soak in water before washing. In order to choose safety measures and protection equipment, please see the other sections of this sheet.

Spillage in waters: remove the liquid from the surface with flameproof pumps or manual pumps or suitable absorbent material. Resort to sinking and/or dispersion of the product with suitable substances in open waters, if permitted by the law.

7. Handling and storage

Avoid the accumulation of electrostatic charges. Store the containers sealed and in a well ventilated place. Vapours may ignite with explosion, it is therefore necessary to avoid accumulation keeping the windows and doors open, ensuring crossventilation. Without adequate ventilation, the vapours may accumulate at the bottom and ignite at a distance, if triggered off, with the risk of flashback. Keep far away from sources of heat, sparks and naked flames. Do not smoke, use matches or lighters. Keep the containers earthed while decanting and wear antistatic boots.

Vigorous stirring and flow through the pipings and equipment may cause the formation and accumulation of electrostatic charges due to the low conductivity of the product. In order to avoid the risk of fire outbreak and explosion never use compressed air during movement.

8. Exposure control / personal protection.

8.1 Exposure limit values

Name	Type	Country	TWA/8h		STEL/15min		
			mg/m ³	ppm	mg/m ³	ppm	
2-BUTOXYETHANOL	TLV-ACGIH		97				Skin
	OEL	EU	98				Skin
	OEL	IRL		20	50		Skin
	WEL	UK		25	50		Skin
PROPAN-2-OL	TLV-ACGIH		491		982		Skin
	OEL	IRL		400	500		Skin
	WEL	UK		400	500		Skin

TLV of solvent mixture: 162 mg/m³

8.2 Exposure controls



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In order to minimize exposure as far as possible, it is strongly recommended to use adequate individual protective measures, such as: masks suitable for the product, goggles, gloves and overall. Do not eat, drink or smoke while handling it. Accurately wash the hands with soap and water before meals and at the end of the work shift.

9. Physical and chemical properties

Colour	WATERLOOK		
Odour	TYPICAL		
Appearance	LIQUID		
Solubility	SOLUBLE IN WATER		
Viscosity	5 cPs (25°C)		
Vapour density	N.A.		
Evaporation speed	N.A.		
Comburent properties	N.A.		
Partition coefficient: n-octanol/water	N.A.		
pH	N.A.		
Boiling point	100	°C	
Flash point	> N.A.		
Explosive properties	N.A.		
Vapour pressure	17,53	mmHg	
Molecular weight	19,423		
Specific gravity	0,996	Kg/l	
VOC (Directive 1999/13/EC) :	2,00%	- 19,93	g/litre of preparation
VOC (volatile carbon) :	1,21%	- 12,04	g/litre of preparation

10. Stability and reactivity

The product is stable in normal conditions of use and storage. When heated or in the event of a fire, carbonoxides may be released and vapours which are dangerous to health. The vapours may also form explosive mixtures with the air.

2-Butoxyethanol may form explosive peroxides; it reacts with light metals, such as aluminium (ref. H.C.S.).

11. Toxicological information

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This preparate may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

2-BUTOXYETHANOL: oral LD50 (mg/kg) 470 (RAT) ; dermal LD50 (mg/kg) 220 (RABBIT) ; inhalation LC50 (rat) 2,21 mg/l/4h
PROPAN-2-OL: oral LD50 (mg/kg) 12800 (RAT) ; dermal LD50 (mg/kg) 12800 (RAT) ; inhalation LC50 (rat) 72,6 mg/l/4h

12. Ecological information

Use this product according to good working practices. Avoid litter. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

13. Disposal consideration

Consider the possibility of burning the product in a suitable incenerator.
Acid or basic products must always be neutralized before undergoing any treatment, including biological treatment whenever feasible. If the waste is solid, it can be disposed of in a landfill.



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14. Transport information

This substance is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

15. Regulatory information

Warning symbols: None

Hazard sentences (R): None

- S 2 KEEP OUT OF THE REACH OF CHILDREN.
- S24/25 AVOID CONTACT WITH SKIN AND EYES.

Safety data sheet available upon request for professional users.

Danger labelling under directives 67/548/EEC and 1999/45/EC and following amendments and adjustments.

16. Other information

Text of -R- phrases quoted in section 3 of the sheet.

- R 11 HIGHLY FLAMMABLE.
- R 20/21/22 HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
- R 36 IRRITATING TO EYES.
- R 36/38 IRRITATING TO EYES AND SKIN.
- R 67 VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS.

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments;
2. Directive 67/548/EEC and following amendments and adjustments (technical adjustment XXIX);
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament;
4. The Merck Index. - 10th Edition;
5. Handling Chemical Safety;
6. Niosh - Registry of Toxic Effects of Chemical Substances;
7. INRS - Fiche Toxicologique (toxicological sheet);
8. Patty - Industrial Hygiene and Toxicology;
9. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition;

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product .

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Changes to previous review

The following sections were modified:
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