Safety Data Sheet

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name	**TEPOX V BLACK**
Chemical name and synonym	**WATER AND SOLVENT BLACK CONCENTRATED**

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

Intended use	**DYE FOR EPOXY RESINS**

1.3. Details of the supplier of the safety data sheet

Name	**Tenax Spa**
Full address	**Via I Maggio, 226**
District and Country	**37020 Volargne (VR)** **Italy** **Tel. +39 045 6887593** **Fax +39 045 6862456**
e-mail address of the competent person responsible for the Safety Data Sheet	**tenax@tenax.it**
Product distribution by	**TENAX USA 1408 Center Park Drive, 28217 Charlotte Tel. 001 704 583 1173** **Fax 001 704 583 3166 info@tenaxusa.com**

1.4. Emergency telephone number

For urgent inquiries refer to	**1-800-5355053 (1-352-323-3500 international)**

2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in Directives 67/548/EEC and 1999/45/EC and/or EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulationn 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

R phrases: 10-52/53-67

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

Hazard labelling pursuant to Directives 67/548/EEC and 1999/45/EC and subsequent amendments and supplements.

Warning symbols: None.

R10	FLAMMABLE.
R52/53	HARMFUL TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.
R67	VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS.
S43	IN CASE OF FIRE USE DUST, CARBON DIOXIDE, FOAM, SPRAYED WATER. DO NOT USE WATER DIRECTLY.

2.3. Other hazards.

Information not available.

3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification 67/548/EEC.	Classification 1272/2008 (CLP).
DIPROPYLENE GLYCOL MONOMETHYL ETHER			
CAS. 34590-94-8	1 - 3,5		Substance with a community workplace exposure limit.
EC. 252-104-2			
INDEX. -			
Reg. no. 01-21194460011-60			
2-BUTOXYETHANOL			
CAS. 111-76-2	5 - 10	Xn R20/21/22, Xi R36/38	Acute Tox. 4 H332, Acute Tox. 4 H312, Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315
EC. 203-905-0			
INDEX. 603-014-00-0			
Reg. no. 01-2119475108-36			
1-METHOXY-2-PROPANOL			
CAS. 107-98-2	50 - 100	R10, R67	Flam. Liq. 3 H226, STOT SE 3 H336
EC. 203-539-1			
INDEX. 603-064-00-3			
Reg. no. 01-2119457435-35			
ACID BLACK 172			
CAS. 57693-14-8	5 - 10	Xi R36, N R51/53	Eye Irrit. 2 H319, Aquatic Chronic 2 H411
EC. 260-906-9			
INDEX. -			

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

4. First aid measures.

4.1. Description of first aid measures.

No harm to the staff authorised to use has been reported. However, in case of contact, inhalation or ingestion, the following general measures provided for a first aid shall be taken.

INHALATION: remove to open air. If respiration is difficult, administer artificial respiration and seek medical advice.

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

EYES and SKIN: wash with plenty of water; if the irritation persists, seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed.

No episodes of damage to health ascribable to the product have been reported.

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

Follow doctor's orders.

5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING MEDIA

The extinction equipment should contain carbon dioxide, foam or chemical powders. For product leaks and spills that have not caught fire, nebulised water can be used to dispel flammable fumes and protect the individuals taking part in stemming the leak.

EXTINGUISHING MEDIA WHICH SHALL NOT BE USED FOR SAFETY REASONS

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion.

Do not breathe combustion products (carbon oxide, toxic pyrolysis products, etc).

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Hardhat with visor, fireproof clothing (fireproof jacket and trousers with ties around arms, legs and waist) work gloves (fireproof, cut proof and dielectric), self-respirator (self-protector).

6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site. If there are no contraindications, spray solid products with water to prevent the formation of dust. Use breathing equipment if fumes or powders are released into the air. Block the leakage if there is no hazard. Do not handle damaged containers or the leaked product before donning appropriate protective gear. For information on risks for the environmental and health, respiratory tract protection, ventilation and personal protection equipment, see the other sections of this sheet.

6.2. Environmental precautions.

The product must not penetrate the sewers, surface water, ground water and neighbouring areas.

6.3. Methods and material for containment and cleaning up.

Use inert absorbent material (sand, vermiculite, diatomeous earth, Kieselguhr, etc.) to soak up leaked product. Collect the majority of the remaining material and deposit it in containers for disposal. If there are no contraindications, use jets of water to eliminate product residues. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage.

7.1. Precautions for safe handling.

Do not smoke while handling and use.

7.2. Conditions for safe storage, including any incompatibilities.

Store in a well ventilated place, keep far away from sources of heat, bright flames and sparks and other sources of ignition.

7.3. Specific end use(s).

Information not available.

8. Exposure controls/personal protection.

8.1. Control parameters.

Name	Type	Country	TWA/8h		STEL/15min		
			mg/m3	ppm	mg/m3	ppm	
DIPROPYLENE GLYCOL MONOMETHYL ETHER	TLV-ACGIH			100		150	Skin
	OEL	EU	308	50			Skin
	OEL	IRL		50		100	Skin
	WEL	UK		50			Skin
2-BUTOXYETHANOL	TLV-ACGIH			20			Skin
	OEL	EU	98	20	246	50	Skin
	OEL	IRL		20		50	Skin
	WEL	UK		25		50	Skin
1-METHOXY-2-PROPANOL	TLV-ACGIH			100		150	Skin
	OEL	EU	375	100	568	150	Skin
	OEL	IRL		100		300	Skin
	WEL	UK		100		150	Skin

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protection equipment, make sure that the workplace is well aired through effective local aspiration or bad air vent.

HAND PROTECTION

Protect hands with category I (ref. Directive 89/686/EEC and standard EN 374) work gloves, such as those in latex, PVC or equivalent.

The following should be considered when choosing work glove material: degradation, breakage times and permeation. Work glove resistance to preparations should be checked before use, as it can be unpredictable. Gloves' limit depends on the duration of exposure.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (ref. Directive 89/686/CEE and standard EN 344). Wash body with soap and water after removing overalls.

RESPIRATORY PROTECTION

If the threshold value for one or more of the substances present in the preparation for daily exposure in the workplace or to a fraction established by the company's prevention and protection service is exceeded, wear a mask with an A or universal filter, the class (1, 2 or 3) of which must be chosen according to the limit concentration of use (ref. standard EN 141).

The use of breathing protection equipment, such as masks with organic vapour and dust/mist cartridges, is necessary in the absence of technical measures limiting worker exposure. The protection provided by masks is in any case limited.
If the substance in question is odourless or its olfactory threshold is higher than the relative exposure limit and in the event of an emergency, or when exposure levels are unknown or the concentration of oxygen in the workplace is less than 17% volume, wear self-contained, open-circuit compressed air breathing apparatus (ref. standard EN 137) or fresh air hose breathing apparatus for use with full face mask, half mask or mouthpiece (ref. standard EN 138).
EYE PROTECTION
Use of protective airtight goggles (ref. standard EN 166) recommended.

9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	liquid
Colour	black
Odour	typical
Odour threshold.	Not available.
pH.	Not available.
Melting or freezing point.	Not available.
Boiling point.	Not available.
Distillation range.	Not available.
Flash point.	32 °C.
Evaporation Rate	Not available.
Flammability of solids and gases	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Specific gravity.	0,94 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	Not available.
Reactive Properties	Not available.

9.2. Other information.

Solid content:	6,78 %			
VOC (Directive 1999/13/EC) :	93,21 %	-	876,17	g/litre.
VOC (volatile carbon) :	50,33 %	-	473,10	g/litre.

10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

DIPROPYLENE GLYCOL MONOMETHYL ETHER: may react with oxidising agents. When heated to decomposition it releases harsh and irritating fumes and vapours.
2-BUTOXYETHANOL: decomposes in the presence of heat.
1-METHOXY-2-PROPANOL: absorbs and disolves in water and in organic solvents, dissolves various plastic materials; it is stable but with air it may slowly form explosive peroxides.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
The vapours may also form explosive mixtures with the air.

2-BUTOXYETHANOL: can react dangerously with: aluminium, oxidising agents. Forms peroxide with air.
1-METHOXY-2-PROPANOL: can react dangerously with strong oxidising agents and strong acids.

10.4. Conditions to avoid.
Avoid overheating, electrostatic discharge and all sources of ignition.

2-BUTOXYETHANOL: avoid exposure to sources of heat and naked flames.
1-METHOXY-2-PROPANOL: avoid exposure to the air.

10.5. Incompatible materials.
1-METHOXY-2-PROPANOL: oxidising agents, strong acids and alkaline metals.

10.6. Hazardous decomposition products.
In the event of thermal decomposition or fire, vapours potentially dangerous to health may be released.

2-BUTOXYETHANOL: hydrogen.

11. Toxicological information.

11.1. Information on toxicological effects.

This product contains highly volatile substances, which may cause serious depression of the central nervous system (CNS) and have negative effects, such as drowsiness, dizziness, slow reflexes, narcosis.

1-METHOXY-2-PROPANOL: the main way of entry is the skin, whereas the respiratory way is less important owing to the low vapour tension of the product. Concentrations above 100 ppm cause eye irritation, nose and oropharynx. At 1000 ppm disturbance in the equilibrium and severe eye irritation is observed. Clinical and biological examinations carried out on exposed volunteers revealed no anomalies. Acetate produces greater skin and ocular irritation on direct contact. No chronic effects have been reported in man.

2-BUTOXYETHANOL

LD50 (Dermal):	600 mg/kg Rabbit
LC50 (Inhalation):	2,21 mg/l/4h Rat

1-METHOXY-2-PROPANOL

LD50 (Oral):	5300 mg/kg Rat
LD50 (Dermal):	13000 mg/kg Rabbit
LC50 (Inhalation):	54,6 mg/l/4h Rat

12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it may even have negative effects on aquatic environment.

12.1. Toxicity.

Information not available.

12.2. Persistence and degradability.

Information not available.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

Information not available.

12.6. Other adverse effects.

Information not available.

13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information.

These goods must be transported by vehicles authorized to the carriage of dangerous goods according to the provisions set out in the current edition of the Code of International Carriage of Dangerous Goods by Road (ADR) and in all the applicable national regulations.

These goods must be packed in their original packagings or in packagings made of materials resistant to their content and not reacting dangerously with it. People loading and unloading dangerous goods must be trained on all the risks deriving from these substances and on all actions that must be taken in case of emergency situations.

Road and rail transport:

ADR/RID Class:	3	UN:	1263
Packing Group:	III		
Label:	3		
Nr. Kemler:	30		
Limited Quantity.	5 lt		
Tunnel restriction code.	(D/E)		
Proper Shipping Name:	PAINT or PAINT RELATED MATERIAL		
Special Provision:	640E		

Carriage by sea (shipping):

IMO Class:	3	UN:	1263
Packing Group:	III		
Label:	3		
EMS:	F-E , S-E		
Marine Pollutant.	NO		
Proper Shipping Name:	PAINT or PAINT RELATED MATERIAL		

Transport by air:

IATA:	3	UN:	1263
Packing Group:	III		
Label:	3		
Cargo:			
Packaging instructions:	366	Maximum quantity:	220 L
Pass.:			
Packaging instructions:	355	Maximum quantity:	60 L
Special Instructions:	A3, A72		
Proper Shipping Name:	PAINT or PAINT RELATED MATERIAL		

15. Regulatory information.

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

Seveso category. 6

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.
Point. 3 - 40

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisarion (Annex XIV REACH).

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

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Emissioni:
TAB. D Classe 3 87,50 %

15.2. Chemical safety assessment.

No chemical safety assessment has been processed for the mixture and the substances it contains.

16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 4	Acute toxicity, category 4
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Flam. Liq. 3	Flammable liquid, category 3
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity category 2
H226	Flammable liquid and vapour.

H332	Harmful if inhaled.
H312	Harmful in contact with skin.
H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

Text of risk (R) phrases mentioned in section 2-3 of the sheet:

R10	FLAMMABLE.
R20/21/22	HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
R36	IRRITATING TO EYES.
R36/38	IRRITATING TO EYES AND SKIN.
R51/53	TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.
R52/53	HARMFUL TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.
R67	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
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. The Merck Index. - 10th Edition
8. Handling Chemical Safety
9. Niosh - Registry of Toxic Effects of Chemical Substances
10. INRS - Fiche Toxicologique (toxicological sheet)
11. Patty - Industrial Hygiene and Toxicology
12. 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:

01 / 16.