



Tenax Spa

PECTRO NERO

Revision nr.7
Dated 9/1/2014
Printed on 13/2/2015
Page n. 1 / 9

EN

Safety data sheet

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

1.1. Product identifier

Product name PECTRO NERO
Chemical name and synonym Resin in solution

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

Intended use Brightner for stones.

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 Italy (VR)
Tel. +39 045 6887593
Fax +39 045 6862456
e-mail address of the competent person responsible for the Safety Data Sheet msds@tenax.it
Product distribution by TENAX USA - 625 Griffith Road - Unit 120 - Charlotte NC 28217 Tel. 001 704 583 1173 - Tel: (800) 341 0432 - 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)

SECTION 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 subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 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.

Danger Symbols: F

R phrases: 11

2.2. Label elements.

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

F



HIGHLY FLAMMABLE

R11 HIGHLY FLAMMABLE.

S 9
S16
S33
KEEP CONTAINER IN A WELL-VENTILATED PLACE.
KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.
TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGES.

2.3. Other hazards.

Information not available.



Tenax Spa

PECTRO NERO

Revision nr.7
Dated 9/1/2014
Printed on 13/2/2015
Page n. 2 / 9

EN

SECTION 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).
1-METHOXY-2-PROPANOL CAS. 107-98-2 EC. 203-539-1 INDEX. 603-064-00-3 Reg. no. 01-2119457435-35-0000	5 - 10	R10, R67	Flam. Liq. 3 H226, STOT SE 3 H336
POLYDIMETHYLSILOXANE WITH AMINOALKYLIC GROUPS CAS. 67923-07-3 EC. - INDEX. -	3,5 - 6	Xi R38, Xi R41	Eye Dam. 1 H318, Skin Irrit. 2 H315
2-BUTOXYETHANOL CAS. 111-76-2 EC. 203-905-0 INDEX. 603-014-00-0 Reg. no. 01-2119475108-36	0,7 - 0,8	Xn R20/21/22, Xi R36/38	Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315
ACETIC ACID CAS. 64-19-7 EC. 200-580-7 INDEX. 607-002-00-6 Reg. no. 01-2119475328-30	0,6 - 0,7	R10, C R35, Note B	Flam. Liq. 3 H226, Skin Corr. 1A H314, Note B
ACID BLACK 172 CAS. 57693-14-8 EC. 260-906-9 INDEX. -	0,5 - 0,6	Xi R36, N R51/53	Eye Irrit. 2 H319, Aquatic Chronic 2 H411
DIPROPYLENE GLYCOL MONOMETHYL ETHER CAS. 34590-94-8 EC. 252-104-2 INDEX. - Reg. no. 01-21194460011-60-0000	0,25 - 0,3		Substance with a community workplace exposure limit.
METHANOL CAS. 67-56-1 EC. 200-659-6 INDEX. 603-001-00-X	0 - 0,05	F R11, T R23/24/25, T R39/23/24/25	Flam. Liq. 2 H225, Acute Tox. 3 H301, Acute Tox. 3 H311, Acute Tox. 3 H331, STOT SE 1 H370

Note: Upper limit is not included into the range.

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

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)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

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

For symptoms and effects caused by the contained substances, see chap. 11.

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

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

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.



Tenax Spa

PECTRO NERO

Revision nr.7
Dated 9/1/2014
Printed on 13/2/2015
Page n. 3 / 9

EN

SECTION 5. Firefighting measures. ... / >>

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.

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 used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. 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.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:
United Kingdom

Éire
OEL EU

TLV-ACGIH

EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended).
Code of Practice Chemical Agent Regulations 2011.
Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
ACGIH 2012



Tenax Spa

PECTRO NERO

Revision nr.7
Dated 9/1/2014
Printed on 13/2/2015
Page n. 4 / 9

EN

SECTION 8. Exposure controls/personal protection. ... / >>

1-METHOXY-2-PROPANOL

Threshold Limit Value.

Type	Country	TWA/8h mg/m ³	ppm	STEL/15min mg/m ³	ppm	
OEL	EU	375	100	568	150	SKIN
OEL	IRL	375	100	568	150	
TLV-ACGIH		369	100	553	150	
WEL	UK	375	100	560	150	SKIN

2-BUTOXYETHANOL

Threshold Limit Value.

Type	Country	TWA/8h mg/m ³	ppm	STEL/15min mg/m ³	ppm	
OEL	IRL	98	20	246	50	SKIN
OEL	EU	98	20	246	50	SKIN
TLV-ACGIH		97	20			
WEL	UK	123	25	246	50	SKIN

ACETIC ACID

Threshold Limit Value.

Type	Country	TWA/8h mg/m ³	ppm	STEL/15min mg/m ³	ppm	
OEL	EU	25	10			
OEL	IRL	25	10	37	15	
TLV-ACGIH		25	10	37	15	

DIPROPYLENE GLYCOL MONOMETHYL ETHER

Threshold Limit Value.

Type	Country	TWA/8h mg/m ³	ppm	STEL/15min mg/m ³	ppm	
OEL	IRL	308	50			SKIN
OEL	EU	308	50			SKIN
TLV-ACGIH		606	100	909	150	SKIN
WEL	UK	308	50			SKIN

METHANOL

Threshold Limit Value.

Type	Country	TWA/8h mg/m ³	ppm	STEL/15min mg/m ³	ppm	
OEL	EU	260	200			SKIN
OEL	IRL	260	200			SKIN
TLV-ACGIH		262	200	328	250	
WEL	UK	266	200	333	250	SKIN

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

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

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION



Tenax Spa

PECTRO NERO

Revision nr.7
Dated 9/1/2014
Printed on 13/2/2015
Page n. 5 / 9

EN

SECTION 8. Exposure controls/personal protection. ... / >>

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 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 point / freezing point.		Not available.
Initial boiling point.	>	35 °C.
Boiling range.		Not available.
Flash point.	<	23 °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.
Relative density.		0,83 Kg/l
Solubility		soluble in water
Partition coefficient: n-octanol/water		Not available.
Auto-ignition temperature.		Not available.
Decomposition temperature.		Not available.
Viscosity		Not available.
Explosive properties		Not available.
Oxidising properties		Not available.

9.2. Other information.

VOC (Directive 1999/13/EC) :	91,10 %	-	756,09	g/litre.
VOC (volatile carbon) :	47,55 %	-	394,64	g/litre.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

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

2-BUTOXYETHANOL: decomposes in the presence of heat.

1-METHOXY-2-PROPANOL: absorbs and dissolves 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.

ACETIC ACID: risk of explosion on contact with: chromium (IV) oxide, potassium permanganate, sodium peroxide, perchloric acid, phosphorus chloride, hydrogen peroxide. Can react dangerously with: alcohols, bromine pentafluoride, chlorosulphuric acid, dichromate-sulphuric acid, ethane diamine, ethylene glycol, potassium hydroxide, strong bases, sodium hydroxide, strong oxidising agent, nitric acid, ammonium nitrate, potassium tert-butoxide, oleum. Forms explosive mixtures with air.

10.4. Conditions to avoid.

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

2-BUTOXYETHANOL: avoid exposure to sources of heat and naked flames.

1-METHOXY-2-PROPANOL: avoid exposure to the air.

ACETIC ACID: avoid exposure to sources of heat and naked flames.



Tenax Spa

PECTRO NERO

Revision nr.7
Dated 9/1/2014
Printed on 13/2/2015
Page n. 6 / 9

EN

SECTION 10. Stability and reactivity. ... / >>

10.5. Incompatible materials.

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

ACETIC ACID: carbonates, hydroxides, many oxides and phosphates. Oxidising substances and bases.

10.6. Hazardous decomposition products.

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

2-BUTOXYETHANOL: hydrogen.

SECTION 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 product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

11.1. Information on toxicological effects.

METHANOL: The minimal lethal dose following ingestion is considered to be in the range of 300-1000 mg/kg. Ingestion of as little as 4-10 ml methanol in adults may cause permanent blindness (IPCS).

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 (Oral).	615 mg/kg Rat
LD50 (Dermal).	405 mg/kg Rabbit
LC50 (Inhalation).	2,2 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

ACETIC ACID

LD50 (Oral).	3310 mg/kg Rat
LD50 (Dermal).	1060 mg/kg Rabbit
LC50 (Inhalation).	11,4 mg/l/4h Rat

SECTION 12. Ecological information.

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

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.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.



Tenax Spa

PECTRO NERO

Revision nr.7
Dated 9/1/2014
Printed on 13/2/2015
Page n. 7 / 9

EN

SECTION 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.

Avoid littering. Do not contaminate soil, sewers and waterways.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

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

SECTION 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:	1993
Packing Group:	II		
Label:	3		
Nr. Kemler:	33		
Limited Quantity:	1 L		
Tunnel restriction code:	(D/E)		
Proper Shipping Name:	FLAMMABLE LIQUID, N.O.S. (ALCOOL ETILICO DENATURATO 94%; 1-METHOXY-2-PROPANOL)		
Special Provision:	640C		



Carriage by sea (shipping):

IMO Class:	3	UN:	1993
Packing Group:	II		
Label:	3		
EMS:	F-E	S-E	
Marine Pollutant:	NO		
Proper Shipping Name:	FLAMMABLE LIQUID, N.O.S. (ALCOOL ETILICO DENATURATO 94%; 1-METHOXY-2-PROPANOL)		



Transport by air:

IATA:	3	UN:	1993
Packing Group:	II		
Label:	3		
Cargo:			
Packaging instructions:	364	Maximum quantity:	60 L
Pass:			
Packaging instructions:	353	Maximum quantity:	5 L
Special Instructions:	A3		
Proper Shipping Name:	FLAMMABLE LIQUID, N.O.S. (ALCOOL ETILICO DENATURATO 94%; 1-METHOXY-2-PROPANOL)		



SECTION 15. Regulatory information.

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

Seveso category: 7b

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

Product: 3 - 40
Point:

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:



Tenax Spa

PECTRO NERO

Revision nr.7
Dated 9/1/2014
Printed on 13/2/2015
Page n. 8 / 9

EN

SECTION 15. Regulatory information. ... / >>

None.

Healthcare controls.

Information not available.

15.2. Chemical safety assessment.

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

SECTION 16. Other information.

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

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
STOT SE 1	Specific target organ toxicity - single exposure, category 1
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1A	Skin corrosion, category 1A
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
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.
R11	HIGHLY FLAMMABLE.
R20/21/22	HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
R23/24/25	TOXIC BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
R35	CAUSES SEVERE BURNS.
R36	IRRITATING TO EYES.
R36/38	IRRITATING TO EYES AND SKIN.
R38	IRRITATING TO SKIN.
R39/23/24/25	TOXIC: DANGER OF VERY SERIOUS IRREVERSIBLE EFFECTS THROUGH INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
R41	RISK OF SERIOUS DAMAGE TO EYES.
R51/53	TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.
R67	VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%



Tenax Spa

PECTRO NERO

Revision nr.7
Dated 9/1/2014
Printed on 13/2/2015
Page n. 9 / 9

EN

SECTION 16. Other information. ... / >>

- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

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. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.J. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

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.

Provide appointed staff with adequate training on how to use chemical products.



Tenax Spa

PECTRO NERO

Revision nr.7
Dated 9/1/2014
Printed on 13/2/2015
Page n. 1 / 9

EN

Safety data sheet

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

1.1. Product identifier

Product name PECTRO NERO
Chemical name and synonym Resin in solution

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

Intended use Brightner for stones.

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 Italy (VR)
Tel. +39 045 6887593
Fax +39 045 6862456
e-mail address of the competent person responsible for the Safety Data Sheet msds@tenax.it
Product distribution by TENAX USA - 625 Griffith Road - Unit 120 - Charlotte NC 28217 Tel. 001 704 583 1173 - Tel: (800) 341 0432 - 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)

SECTION 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 subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 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.

Danger Symbols: F

R phrases: 11

2.2. Label elements.

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

F



HIGHLY FLAMMABLE

R11 HIGHLY FLAMMABLE.

S 9 KEEP CONTAINER IN A WELL-VENTILATED PLACE.
S16 KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.
S33 TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGES.

2.3. Other hazards.

Information not available.



Tenax Spa

PECTRO NERO

Revision nr.7
Dated 9/1/2014
Printed on 13/2/2015
Page n. 2 / 9

EN

SECTION 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).
1-METHOXY-2-PROPANOL CAS. 107-98-2 EC. 203-539-1 INDEX. 603-064-00-3 Reg. no. 01-2119457435-35-0000	5 - 10	R10, R67	Flam. Liq. 3 H226, STOT SE 3 H336
POLYDIMETHYLSILOXANE WITH AMINOALKYLIC GROUPS CAS. 67923-07-3 EC. - INDEX. -	3,5 - 6	Xi R38, Xi R41	Eye Dam. 1 H318, Skin Irrit. 2 H315
2-BUTOXYETHANOL CAS. 111-76-2 EC. 203-905-0 INDEX. 603-014-00-0 Reg. no. 01-2119475108-36	0,7 - 0,8	Xn R20/21/22, Xi R36/38	Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315
ACETIC ACID CAS. 64-19-7 EC. 200-580-7 INDEX. 607-002-00-6 Reg. no. 01-2119475328-30	0,6 - 0,7	R10, C R35, Note B	Flam. Liq. 3 H226, Skin Corr. 1A H314, Note B
ACID BLACK 172 CAS. 57693-14-8 EC. 260-906-9 INDEX. -	0,5 - 0,6	Xi R36, N R51/53	Eye Irrit. 2 H319, Aquatic Chronic 2 H411
DIPROPYLENE GLYCOL MONOMETHYL ETHER CAS. 34590-94-8 EC. 252-104-2 INDEX. - Reg. no. 01-21194460011-60-0000	0,25 - 0,3		Substance with a community workplace exposure limit.
METHANOL CAS. 67-56-1 EC. 200-659-6 INDEX. 603-001-00-X	0 - 0,05	F R11, T R23/24/25, T R39/23/24/25	Flam. Liq. 2 H225, Acute Tox. 3 H301, Acute Tox. 3 H311, Acute Tox. 3 H331, STOT SE 1 H370

Note: Upper limit is not included into the range.

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

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)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

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

For symptoms and effects caused by the contained substances, see chap. 11.

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

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

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.



Tenax Spa

PECTRO NERO

Revision nr.7
Dated 9/1/2014
Printed on 13/2/2015
Page n. 3 / 9

EN

SECTION 5. Firefighting measures. ... / >>

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.

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 used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. 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.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:
United Kingdom

Éire
OEL EU

TLV-ACGIH

EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended).
Code of Practice Chemical Agent Regulations 2011.
Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
ACGIH 2012



Tenax Spa

PECTRO NERO

Revision nr.7
Dated 9/1/2014
Printed on 13/2/2015
Page n. 4 / 9

EN

SECTION 8. Exposure controls/personal protection. ... / >>

1-METHOXY-2-PROPANOL

Threshold Limit Value.

Type	Country	TWA/8h mg/m ³	ppm	STEL/15min mg/m ³	ppm	
OEL	EU	375	100	568	150	SKIN
OEL	IRL	375	100	568	150	
TLV-ACGIH		369	100	553	150	
WEL	UK	375	100	560	150	SKIN

2-BUTOXYETHANOL

Threshold Limit Value.

Type	Country	TWA/8h mg/m ³	ppm	STEL/15min mg/m ³	ppm	
OEL	IRL	98	20	246	50	SKIN
OEL	EU	98	20	246	50	SKIN
TLV-ACGIH		97	20			
WEL	UK	123	25	246	50	SKIN

ACETIC ACID

Threshold Limit Value.

Type	Country	TWA/8h mg/m ³	ppm	STEL/15min mg/m ³	ppm	
OEL	EU	25	10			
OEL	IRL	25	10	37	15	
TLV-ACGIH		25	10	37	15	

DIPROPYLENE GLYCOL MONOMETHYL ETHER

Threshold Limit Value.

Type	Country	TWA/8h mg/m ³	ppm	STEL/15min mg/m ³	ppm	
OEL	IRL	308	50			SKIN
OEL	EU	308	50			SKIN
TLV-ACGIH		606	100	909	150	SKIN
WEL	UK	308	50			SKIN

METHANOL

Threshold Limit Value.

Type	Country	TWA/8h mg/m ³	ppm	STEL/15min mg/m ³	ppm	
OEL	EU	260	200			SKIN
OEL	IRL	260	200			SKIN
TLV-ACGIH		262	200	328	250	
WEL	UK	266	200	333	250	SKIN

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

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

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION



Tenax Spa

PECTRO NERO

Revision nr.7
Dated 9/1/2014
Printed on 13/2/2015
Page n. 5 / 9

EN

SECTION 8. Exposure controls/personal protection. ... / >>

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 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 point / freezing point.		Not available.
Initial boiling point.	>	35 °C.
Boiling range.		Not available.
Flash point.	<	23 °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.
Relative density.		0,83 Kg/l
Solubility		soluble in water
Partition coefficient: n-octanol/water		Not available.
Auto-ignition temperature.		Not available.
Decomposition temperature.		Not available.
Viscosity		Not available.
Explosive properties		Not available.
Oxidising properties		Not available.

9.2. Other information.

VOC (Directive 1999/13/EC) :	91,10 %	-	756,09	g/litre.
VOC (volatile carbon) :	47,55 %	-	394,64	g/litre.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

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

2-BUTOXYETHANOL: decomposes in the presence of heat.

1-METHOXY-2-PROPANOL: absorbs and dissolves 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.

ACETIC ACID: risk of explosion on contact with: chromium (IV) oxide, potassium permanganate, sodium peroxide, perchloric acid, phosphorus chloride, hydrogen peroxide. Can react dangerously with: alcohols, bromine pentafluoride, chlorosulphuric acid, dichromate-sulphuric acid, ethane diamine, ethylene glycol, potassium hydroxide, strong bases, sodium hydroxide, strong oxidising agent, nitric acid, ammonium nitrate, potassium tert-butoxide, oleum. Forms explosive mixtures with air.

10.4. Conditions to avoid.

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

2-BUTOXYETHANOL: avoid exposure to sources of heat and naked flames.

1-METHOXY-2-PROPANOL: avoid exposure to the air.

ACETIC ACID: avoid exposure to sources of heat and naked flames.



Tenax Spa

PECTRO NERO

Revision nr.7
Dated 9/1/2014
Printed on 13/2/2015
Page n. 6 / 9

EN

SECTION 10. Stability and reactivity. ... / >>

10.5. Incompatible materials.

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

ACETIC ACID: carbonates, hydroxides, many oxides and phosphates. Oxidising substances and bases.

10.6. Hazardous decomposition products.

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

2-BUTOXYETHANOL: hydrogen.

SECTION 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 product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

11.1. Information on toxicological effects.

METHANOL: The minimal lethal dose following ingestion is considered to be in the range of 300-1000 mg/kg. Ingestion of as little as 4-10 ml methanol in adults may cause permanent blindness (IPCS).

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 (Oral).	615 mg/kg Rat
LD50 (Dermal).	405 mg/kg Rabbit
LC50 (Inhalation).	2,2 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

ACETIC ACID

LD50 (Oral).	3310 mg/kg Rat
LD50 (Dermal).	1060 mg/kg Rabbit
LC50 (Inhalation).	11,4 mg/l/4h Rat

SECTION 12. Ecological information.

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

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.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.



Tenax Spa

PECTRO NERO

Revision nr.7
Dated 9/1/2014
Printed on 13/2/2015
Page n. 7 / 9

EN

SECTION 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.

Avoid littering. Do not contaminate soil, sewers and waterways.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

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

SECTION 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:	1993
Packing Group:	II		
Label:	3		
Nr. Kemler:	33		
Limited Quantity:	1 L		
Tunnel restriction code:	(D/E)		
Proper Shipping Name:	FLAMMABLE LIQUID, N.O.S. (ALCOOL ETILICO DENATURATO 94%; 1-METHOXY-2-PROPANOL)		
Special Provision:	640C		



Carriage by sea (shipping):

IMO Class:	3	UN:	1993
Packing Group:	II		
Label:	3		
EMS:	F-E	S-E	
Marine Pollutant:	NO		
Proper Shipping Name:	FLAMMABLE LIQUID, N.O.S. (ALCOOL ETILICO DENATURATO 94%; 1-METHOXY-2-PROPANOL)		



Transport by air:

IATA:	3	UN:	1993
Packing Group:	II		
Label:	3		
Cargo:			
Packaging instructions:	364	Maximum quantity:	60 L
Pass:			
Packaging instructions:	353	Maximum quantity:	5 L
Special Instructions:	A3		
Proper Shipping Name:	FLAMMABLE LIQUID, N.O.S. (ALCOOL ETILICO DENATURATO 94%; 1-METHOXY-2-PROPANOL)		



SECTION 15. Regulatory information.

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

Seveso category: 7b

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

Product: 3 - 40
Point:

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:



Tenax Spa

PECTRO NERO

Revision nr.7
Dated 9/1/2014
Printed on 13/2/2015
Page n. 8 / 9

EN

SECTION 15. Regulatory information. ... / >>

None.

Healthcare controls.

Information not available.

15.2. Chemical safety assessment.

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

SECTION 16. Other information.

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

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
STOT SE 1	Specific target organ toxicity - single exposure, category 1
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1A	Skin corrosion, category 1A
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
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.
R11	HIGHLY FLAMMABLE.
R20/21/22	HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
R23/24/25	TOXIC BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
R35	CAUSES SEVERE BURNS.
R36	IRRITATING TO EYES.
R36/38	IRRITATING TO EYES AND SKIN.
R38	IRRITATING TO SKIN.
R39/23/24/25	TOXIC: DANGER OF VERY SERIOUS IRREVERSIBLE EFFECTS THROUGH INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
R41	RISK OF SERIOUS DAMAGE TO EYES.
R51/53	TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.
R67	VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%



Tenax Spa

PECTRO NERO

Revision nr.7
Dated 9/1/2014
Printed on 13/2/2015
Page n. 9 / 9

EN

SECTION 16. Other information. ... / >>

- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

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. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.J. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

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.

Provide appointed staff with adequate training on how to use chemical products.