



Tenax Spa VIGOR

Revision nr.1
Dated 9/7/2015
Printed on 10/2/2015
Page n. 1 / 11

Safety data sheet according to U.S.A. Federal Hazcom 2012

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

1.1. Product identifier

Product name **VIGOR**

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

Intended use **polyepoxy glue**

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 **msds@tenax.it**

Product distribution by **TENAX USA – 7606 Whitehall Executive Center Drive - Unit 400 - Charlotte NC 28273 Tel. +1 704-583-1173 - Tel: (800) 341 0432 - Fax +1 704-583-3166 - 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 OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Flammable liquid, category 2

Carcinogenicity, category 2

Reproductive toxicity, category 2

Specific target organ toxicity - repeated exposure, category 1

Eye irritation, category 2

Skin irritation, category 2

Skin sensitization, category 1

Highly flammable liquid and vapour.

Suspected of causing cancer.

Suspected of damaging fertility or the unborn child.

Causes damage to organs through prolonged or repeated exposure.

Causes serious eye irritation.

Causes skin irritation.

May cause an allergic skin reaction.

Hazard pictograms:



Signal words: **Danger**

Hazard statements:

H225 Highly flammable liquid and vapour.

H351 Suspected of causing cancer.

H361 Suspected of damaging fertility or the unborn child.

H372 Causes damage to organs through prolonged or repeated exposure.

H319 Causes serious eye irritation.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

Precautionary statements:

Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.



Tenax Spa VIGOR

Revision nr.1
Dated 9/7/2015
Printed on 10/2/2015
Page n. 2 / 11

SECTION 2. Hazards identification. ... / >>

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground / bond container and receiving equipment.
P241	Use explosion-proof electrical / ventilating / lighting / ... / equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe dust / fume / gas / mist / vapours / spray.
P264	Wash ... thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / clothing and eye / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice / attention.
P314	Get medical advice / attention if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: use . . . to extinguish.

Storage:

P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Disposal:

P501	Dispose of contents / container according to applicable law.
------	--------------------------------------------------------------

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
STYRENE		
CAS. 100-42-5	20 - 30	Flammable liquid, category 3 H226, Carcinogenicity, category 2 H351, Reproductive toxicity, category 2 H361d, Acute toxicity, category 4 H332, Specific target organ toxicity - repeated exposure, category 1 H372, Eye irritation, category 2 H319, Skin irritation, category 2 H315
METHYL METHACRYLATE		
CAS. 80-62-6	1 - 3.5	Flammable liquid, category 2 H225, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317
PARA-TOLUIDINE POLYETHOXYLATE		
CAS. 103671-44-9	1 - 3	Acute toxicity, category 4 H302, Serious eye damage, category 1 H318

Note: Upper limit is not included into the range.

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

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.



Tenax Spa

VIGOR

Revision nr.1
Dated 9/7/2015
Printed on 10/2/2015
Page n. 3 / 11

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products. The product is combustible and, when the powder is released into the air in sufficient concentrations and in the presence of a source of ignition, it can create explosive mixtures with air. Fires may start or get worse by leakage of the solid product from the container, when it reaches high temperatures or through contact with sources of ignition.

METHYL METHACRYLATE: heat may cause the product to polymerise, which could lead to explosion.

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. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. 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. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. 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.



Tenax Spa

VIGOR

Revision nr.1
Dated 9/7/2015
Printed on 10/2/2015
Page n. 4 / 11

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU TLV-ACGIH	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. ACGIH 2014

STYRENE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	85	20	170	40	
OSHA	USA		100		200 (C)	
CAL/OSHA	USA	215	50	425 (C)	500 (C)	SKIN.
NIOSH	USA	215	50	425	100	

METHYL METHACRYLATE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	205	50	410	100	
OEL	EU		50		100	
OSHA	USA	410	100			
CAL/OSHA	USA	205	50	410	100	
NIOSH	USA	410	100			

TLV of solvent mixture: 89 mg/m3.

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. Personal protective equipment must comply with current regulations.

Provide an emergency shower with face and eye wash station.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

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 III 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 (OSHA 29 CFR 1910.133).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY 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 NIOSH certified filter, whose limit of use will be defined by the manufacturer (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). 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 or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.



Tenax Spa

VIGOR

Revision nr.1
Dated 9/7/2015
Printed on 10/2/2015
Page n. 5 / 11

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

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			pasty
Colour			transparent
Odour			characteristic
Odour threshold.			Not available.
pH.			Not available.
Melting point / freezing point.			Not available.
Initial boiling point.	>	35	°C. (95 °F)
Boiling range.			Not available.
Flash point.	<	23	°C. (73,4 °F)
Evaporation rate			Not available.
Flammability (solid, gas)			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.		1.1	Kg/l
Solubility			insoluble 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.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

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

STYRENE: polymerises readily above 65°C/149°F with risk of fire and explosion; added with an inhibitor that requires a small amount of dissolved oxygen at temperatures < 25°C/77°F.

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.

METHYL METHACRYLATE: may polymerise on contact with: ammonia, organic peroxides, persulphates. risk of explosion on contact with: dibenzoyl peroxide, di-terbutyl peroxide, propionaldehyde. Can react dangerously with strong oxidising agents. Forms explosive mixtures with the air.

STYRENE: can react dangerously with peroxides and strong acids. May polymerise on contact with: aluminium trichloride, azobisisobutyronitrile, dibenzoyl peroxide, sodium. Risk of explosion on contact with: butyllithium, chlorosulphuric acid, diterbutyl peroxide, oxidising agents, oxygen.

10.4. Conditions to avoid.

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

METHYL METHACRYLATE: avoid heat, UV rays, oxidising agents, reducing agents, acids and bases.

10.5. Incompatible materials.

STYRENE: avoid oxidising agents, copper and strong acids; it dissolves various types of plastic materials, but not polychloroprene and polyvinyl alcohol.

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.

METHYL METHACRYLATE: when heated to decomposition it releases harsh and irritating fumes and vapours.



Tenax Spa

VIGOR

Revision nr.1
Dated 9/7/2015
Printed on 10/2/2015
Page n. 6 / 11

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product must be handled carefully because of its possible carcinogenic effects. Anyway, currently available data do not allow us to comprehensively assess this product.

This product must be handled carefully because of its possible teratogenic effects, which may reduce human fertility or because of its possible teratogenic effects, which may be toxic and damage the foetus development.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.

Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

STYRENE: Acute toxicity following inhalation at 1000 ppm involves the central nervous system with headache and dizziness, lack of coordination; irritation of the mucous membranes of the eyes and respiratory tract occurs at 500 ppm concentrations. Chronic exposure produces depression of the Central and peripheral nervous system with loss of memory, headache and somnolence starting at 20 ppm; digestive disorders with nausea and loss of appetite; irritation of the respiratory tract with chronic bronchitis and dermatosis.

STYRENE

LD50 (Oral). 5000 mg/kg Rat
LC50 (Inhalation). 11.8 mg/l/4h Rat

Carcinogenicity Assessment:

100-42-5 STYRENE

ACGIH:: A4

IARC:2B

NTP: Reasonably Anticipated

80-62-6 METHYL METHACRYLATE

ACGIH:: A4

IARC:3

SECTION 12. Ecological information.

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

12.1. Toxicity.

Information not available.

12.2. Persistence and degradability.

METHYL METHACRYLATE

Solubility in water. 15300 mg/l
Rapidly biodegradable.

STYRENE

Solubility in water. 320 mg/l
Rapidly biodegradable.

12.3. Bioaccumulative potential.



Tenax Spa VIGOR

Revision nr.1
Dated 9/7/2015
Printed on 10/2/2015
Page n. 7 / 11

SECTION 12. Ecological information. ... / >>

METHYL METHACRYLATE
Partition coefficient: n-octanol/water. 1.38

STYRENE
Partition coefficient: n-octanol/water. 2.96
BCF. 74

12.4. Mobility in soil.

METHYL METHACRYLATE
Partition coefficient: soil/water. 0.94

STYRENE
Partition coefficient: soil/water. 2.55

12.5. Results of PBT and vPvB assessment.

Information not available.

12.6. Other adverse effects.

Information not available.

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.

Waste transportation may be subject to dangerous goods transport regulations.

CONTAMINATED PACKAGING

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

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1866

14.2. UN proper shipping name.

ADR / RID: RESIN SOLUTION
IMDG: RESIN SOLUTION
IATA: RESIN SOLUTION

14.3. Transport hazard class(es).

ADR / RID: Class: 3 Label: 3



IMDG: Class: 3 Label: 3



IATA: Class: 3 Label: 3



14.4. Packing group.

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO



Tenax Spa VIGOR

Revision nr.1
Dated 9/7/2015
Printed on 10/2/2015
Page n. 8 / 11

SECTION 14. Transport information. ... / >>

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 33	Limited Quantities 5 L	Tunnel restriction code (D/E)
IMDG:	Special Provision: 640C	Limited Quantities 5 L	
IATA:	EMS: F-E, S-E	Maximum quantity: 60 L	Packaging instructions: 364
	Cargo:	Maximum quantity: 5 L	Packaging instructions: 353
	Pass.:	A3	
	Special Instructions:		

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

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

U.S. Federal Regulations:

TSCA:

All components are listed on TSCA Inventory.

Clean Air Act Section 112(b):

80-62-6	METHYL METHACRYLATE
100-42-5	STYRENE

Clean Air Act Section 602 Class I Substances:

No component(s) listed.

Clean Air Act Section 602 Class II Substances:

No component(s) listed.

Clean Water Act – Priority Pollutants:

No component(s) listed.

Clean Water Act – Toxic Pollutants:

No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):

No component(s) listed.

DEA List II Chemicals (Essential Chemicals):

No component(s) listed.

EPA List of Lists:

313 Category Code:

80-62-6	METHYL METHACRYLATE
100-42-5	STYRENE

EPCRA 302 EHS TPQ:

No component(s) listed.

EPCRA 304 EHS RQ:

No component(s) listed.

CERCLA RQ:

80-62-6	METHYL METHACRYLATE
100-42-5	STYRENE

EPCRA 313 TRI:

80-62-6	METHYL METHACRYLATE
100-42-5	STYRENE

RCRA Code:

80-62-6	METHYL METHACRYLATE
---------	---------------------

CAA 112 (r) RMP TQ:



Tenax Spa VIGOR

Revision nr.1
Dated 9/7/2015
Printed on 10/2/2015
Page n. 9 / 11

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

No component(s) listed.

State Regulations.

Massachusetts:

80-62-6 METHYL METHACRYLATE
100-42-5 STYRENE

Minnesota:

80-62-6 METHYL METHACRYLATE
100-42-5 STYRENE

New Jersey:

80-62-6 METHYL METHACRYLATE
100-42-5 STYRENE

New York:

80-62-6 METHYL METHACRYLATE
100-42-5 STYRENE

Pennsylvania:

80-62-6 METHYL METHACRYLATE
100-42-5 STYRENE

California:

80-62-6 METHYL METHACRYLATE
100-42-5 STYRENE

Proposition 65:

This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.

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:

None.

Candadian WHMIS.

Information not available.

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
Carc. 2	Carcinogenicity, category 2
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
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
Skin Sens. 1	Skin sensitization, category 1
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

LEGEND:

- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code



Tenax Spa

VIGOR

Revision nr.1
Dated 9/7/2015
Printed on 10/2/2015
Page n. 10 / 11

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

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- 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
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- 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.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:

- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Communication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachusetts 105 CMR Department of public health 670.000: "Right to Know"
- Minnesota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

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.



Tenax Spa VIGOR

Revision nr.1
Dated 9/7/2015
Printed on 10/2/2015
Page n. 11 / 11

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

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