



# Tenax Spa

## TITANIUM FLOWING

Revision nr.6  
Dated 2/15/2021  
Printed on 2/15/2021  
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Replaced revision:5 (Dated 2/13/2020)

### Safety Data Sheet

According to U.S.A. Federal Hazcom 2012

## 1. Identification

### 1.1. Product identifier

Product name **TITANIUM FLOWING**

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

Intended use **Epoxy vinyl ester liquid acrylate mastic**

Identified Uses	Industrial	Professional	Consumer
<b>ADHESIVE SYSTEM/TREATMENT FOR STONE SECTOR</b>	-	✓	-

### 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 Suite 400, 28273 Charlotte NC, US**  
Tel. **001 7045831173** - Fax **001 7045833166**  
**info@tenaxusa.com**

### 1.4. Emergency telephone number

For urgent inquiries refer to **Infotrac**  
**US and Canada: 1-800-535-5053**  
**Int'l: 1-352-323-3500**  
**info@infotrac.net**

## 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 3	Flammable liquid and vapour.
Reproductive toxicity, category 2	Suspected of damaging fertility or the unborn child.
Specific target organ toxicity - repeated exposure, category 1	Causes damage to organs through prolonged or repeated exposure.
Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:





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### 2. Hazards identification ... / >>

Signal words: Danger

Hazard statements:

- H226** Flammable liquid and vapour.
- 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.
- H335** May cause respiratory irritation.
- H317** May cause an allergic skin reaction.

Precautionary statements:

Prevention:

- P210** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P260** Do not breathe dust / fume / gas / mist / vapours / spray.
- P202** Do not handle until all safety precautions have been read and understood.
- P242** Use only non-sparking tools.
- P201** Obtain special instructions before use.
- P280** Wear protective gloves/ protective clothing / eye protection / face protection.
- P270** Do not eat, drink or smoke when using this product.
- P271** Use only outdoors or in a well-ventilated area.
- P264** Wash the hands thoroughly after handling.
- P240** Ground / bond container and receiving equipment.
- P243** Take precautionary measures against static discharge.
- P241** Use explosion-proof electrical / ventilating / lighting / . . . / equipment.
- P272** Contaminated work clothing should not be allowed out of the workplace.

Response:

- P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P303+P361+P353** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower.
- P308+P313** IF exposed or concerned: Get medical advice / attention.
- P312** Call a POISON CENTER / doctor / . . . / 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.
- P304+P340** IF INHALED: remove person to fresh air and keep comfortable for breathing.
- P302+P352** IF ON SKIN: wash with plenty of water / . . .
- P362+P364** Take off contaminated clothing and wash it before reuse.
- P370+P378** In case of fire: use CO<sub>2</sub>, sand, powder to extinguish.
- P363** Wash contaminated clothing before reuse.

Storage:

- P403+P235** Store in a well-ventilated place. Keep cool.
- P403+P233** Store in a well-ventilated place. Keep container tightly closed.
- P405** Store locked up.

Disposal:

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

### 2.2. Other hazards

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement

Hazardous to the aquatic environment, chronic toxicity, category 3

Harmful to aquatic life with long lasting effects.

Hazard statements:

- H412** Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

- P273** Avoid release to the environment.

Response:

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Storage:

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Disposal:

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

Additional hazards

Information not available



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### 3. Composition/information on ingredients

#### 3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification:
<b>STYRENE</b>		
CAS	100-42-5 47 ≤ x < 49	<b>Flammable liquid, category 3 H226, Reproductive toxicity, category 2 H361, Acute toxicity, category 4 H332, Specific target organ toxicity - repeated exposure, category 1 H372, Aspiration hazard, category 1 H304, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412</b>
EC	202-851-5	
INDEX	601-026-00-0	
<b>METHYL METHACRYLATE</b>		
CAS	80-62-6 2 ≤ x < 2.5	<b>Flammable liquid, category 2 H225, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317</b>
EC	201-297-1	
INDEX	607-035-00-6	
<b>methacrylic acid</b>		
CAS	79-41-4 0.7 ≤ x < 1	<b>Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Skin corrosion, category 1A H314, Serious eye damage, category 1 H318, Specific target organ toxicity - single exposure, category 3 H335</b>
EC	201-204-4	
INDEX	607-088-00-5	
<b>DIISOPROPANOL-PARA-TOLUIDINE</b>		
CAS	38668-48-3 0.7 ≤ x < 1	<b>Acute toxicity, category 2 H300, Eye irritation, category 2 H319, Hazardous to the aquatic environment, chronic toxicity, category 3 H412</b>
EC	254-075-1	
INDEX		
<b>octabenzene</b>		
CAS	1843-05-6 0.1 ≤ x < 0.4	<b>Skin sensitization, category 1 H317</b>
EC	217-421-2	
INDEX		

\* There is a batch to batch variation.

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

### 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 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

**SKIN:** Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

**INGESTION:** Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

**INHALATION:** Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available



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## 5. Fire-fighting 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.

### 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.

#### 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).

## 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. 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

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. 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 cool and well



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### 7. Handling and storage ... / >>

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

### 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	Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2020

#### STYRENE

##### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	10		20		
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		Remarks / Observations
		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			

#### methacrylic acid

##### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
CAL/OSHA	USA	70	20			SKIN
NIOSH	USA	70	20			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. Personal protective equipment must comply with current regulations.

##### 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 I professional long-sleeved overalls and safety footwear. Wash body with soap and water after removing protective clothing.

##### EYE PROTECTION

Wear airtight protective goggles (OSHA 29 CFR 1910.133).

##### 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



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

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, OSHA 29 CFR 1910.134.

#### ENVIRONMENTAL EXPOSURE CONTROLS

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

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

**HAND PROTECTION:** Protect hands with work gloves for protection from chemical agents in nitrile or neoprene (EN 374-1: 2016) at least type B or higher based on the risk assessment carried out by the company

### 9. Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	TRANSPARENT-BLUE	
Odour	aromatic	
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 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	1.05 g/cc	
Solubility	insoluble in water	
Partition coefficient: n-octanol/water	Not available	
Auto-ignition temperature	Not available	
Decomposition temperature	Not available	
Viscosity	>20,5 mm <sup>2</sup> /sec (40°C)	
Explosive properties	Not available	
Oxidising properties	Not available	

#### 9.2. Other information

VOC : 49,30 % - 517,67 g/litre

### 10. Stability and reactivity

#### 10.1. Reactivity

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

#### STYRENE

Polymerises at temperatures above 65°C/149°F. Fire hazard. Possibility of explosion.

#### 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.

#### STYRENE

May react dangerously with: peroxides, strong acids. May polymerise on contact with: aluminium



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### 10. Stability and reactivity ... / >>

trichloride, azobisisobutyronitrile, dibenzoyl peroxide, sodium. Risk of explosion on contact with: butyllithium, chlorosulphuric acid, diterbutyl peroxide, oxidising substances, oxygen.

#### METHYL METHACRYLATE

May polymerise on contact with: ammonia, organic peroxides, persulphates. Risk of explosion on contact with: dibenzoyl peroxide, diterbutyl peroxide, propionaldehyde. May react dangerously with: strong oxidising agents. Forms explosive mixtures with: air.

#### 10.4. Conditions to avoid

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

#### STYRENE

Avoid contact with: oxidising substances, copper, strong acids.

#### METHYL METHACRYLATE

Avoid exposure to: heat, UV rays. Avoid contact with: oxidising substances, reducing substances, acids, bases.

#### 10.5. Incompatible materials

#### STYRENE

Incompatible materials: plastic materials.

#### 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 releases: harsh fumes, zinc alloys.

### 11. Toxicological information

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.

#### 11.1. Information on toxicological effects

##### Metabolism, toxicokinetics, mechanism of action and other information

Information not available

##### Information on likely routes of exposure

Information not available

##### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

##### Interactive effects

Information not available

##### ACUTE TOXICITY

methacrylic acid	
LD50 (Oral)	1350 mg/kg Ratto
LD50 (Dermal)	> 500 mg/kg Coniglio
LC50 (Inhalation)	7.1 mg/l/4h Ratto

METHYL METHACRYLATE	
LD50 (Oral)	> 5000 mg/kg
LD50 (Dermal)	5000 mg/kg
LC50 (Inhalation)	29.8 mg/l/4h

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

DIISOPROPANOL-PARA-TOLUIDINE	
LD50 (Oral)	> 25 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rat

##### SKIN CORROSION / IRRITATION



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### 11. Toxicological information ... / >>

Causes skin irritation

#### SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

#### RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

#### GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

#### CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Carcinogenicity Assessment:

100-42-5	STYRENE
	ACGIH:: A4
	IARC:2B
	NTP: Reasonably Anticipated
80-62-6	METHYL METHACRYLATE
	ACGIH:: A4
	IARC:3
102-71-6	TRIETHANOLAMINE
	IARC:3

#### REPRODUCTIVE TOXICITY

Suspected of damaging fertility or the unborn child

#### STOT - SINGLE EXPOSURE

May cause respiratory irritation

#### STOT - REPEATED EXPOSURE

Causes damage to organs

#### ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class Viscosity: >20,5 mm<sup>2</sup>/sec (40°C)

### 12. Ecological information

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

#### 12.1. Toxicity

methacrylic acid

LC50 - for Fish	85 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	> 130 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	20 mg/l/72h Pseudokirchneriella subcapitata
Chronic NOEC for Fish	10 mg/l Danio rerio
Chronic NOEC for Crustacea	53 mg/l Daphnia magna





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### 12. Ecological information ... / >>

#### METHYL METHACRYLATE

LC50 - for Fish	130 mg/l/96h Pimephales promelas
EC50 - for Crustacea	69 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	110 mg/l/72h Pseudokirchneriella subcapitata
Chronic NOEC for Fish	9.4 mg/l Brachydanio rerio
Chronic NOEC for Crustacea	37 mg/l Daphnia magna

#### DIISOPROPANOL-PARA-TOLUIDINE

LC50 - for Fish	17 mg/l/96h Brachydanio rerio
EC50 - for Crustacea	28.8 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	245 mg/l/72h Desmodesmus subspicatus

### 12.2. Persistence and degradability

methacrylic acid  
Rapidly degradable

#### METHYL METHACRYLATE

Solubility in water  
Rapidly degradable 15300 mg/l

#### STYRENE

Solubility in water  
Rapidly degradable 320 mg/l

#### DIISOPROPANOL-PARA-TOLUIDINE

Solubility in water  
NOT rapidly degradable 7000 mg/l

### 12.3. Bioaccumulative potential

methacrylic acid

Partition coefficient: n-octanol/water 0.93

BCF 1

#### METHYL METHACRYLATE

Partition coefficient: n-octanol/water 1.38

#### STYRENE

Partition coefficient: n-octanol/water 2.96

BCF 74

#### DIISOPROPANOL-PARA-TOLUIDINE

Partition coefficient: n-octanol/water 2.1

### 12.4. Mobility in soil



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### 12. Ecological information ... / >>

METHYL METHACRYLATE

Partition coefficient: soil/water 0.94

STYRENE

Partition coefficient: soil/water 2.55

#### 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  $\geq$  than 0,1%.

#### 12.6. Other adverse effects

Information not available

### 13. Disposal considerations

#### 13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.

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

#### 14.1. UN number

ADR / RID, IMDG, IATA: 1866

The product, if packaged in packages of less than 450 litres, is not subject to ADR regulations as stated in 2.2.3.1.5.

The product, if packaged in packages of less than 30 litres, is not subject to obligations relating to marking, labelling and package testing in accordance with 2.3.2.5 of the IMDG CODE.

#### 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: III

#### 14.5. Environmental hazards

ADR / RID: NO

IMDG: NO

IATA: NO



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### 14. Transport information ... / >>

#### 14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 30	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	Special Provision: -	Limited Quantities: 5 L	
IATA:	EMS: F-E, S-E	Maximum quantity: 220 L	Packaging instructions: 366
	Cargo:	Maximum quantity: 60 L	Packaging instructions: 355
	Pass.:	Maximum quantity: 60 L	
	Special Instructions:	A3	

#### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

### 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):

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

##### 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:

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

##### EPCRA 302 EHS TPQ:

No component(s) listed.

##### EPCRA 304 EHS RQ:

No component(s) listed.

##### CERCLA RQ:

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

##### EPCRA 313 TRI:

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

##### RCRA Code:

80-62-6	METHYL METHACRYLATE
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### 15. Regulatory information ... / >>

CAA 112 (r) RMP TQ:  
No component(s) listed.

#### State Regulations

##### Massachusetts:

100-42-5	STYRENE
80-62-6	METHYL METHACRYLATE
79-41-4	methacrylic acid
102-71-6	TRIETHANOLAMINE

##### Minnesota:

100-42-5	STYRENE
80-62-6	METHYL METHACRYLATE
79-41-4	methacrylic acid
102-71-6	TRIETHANOLAMINE

##### New Jersey:

100-42-5	STYRENE
80-62-6	METHYL METHACRYLATE
79-41-4	methacrylic acid
102-71-6	TRIETHANOLAMINE

##### New York:

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

##### Pennsylvania:

100-42-5	STYRENE
80-62-6	METHYL METHACRYLATE
79-41-4	methacrylic acid
102-71-6	TRIETHANOLAMINE

##### California:

100-42-5	STYRENE
80-62-6	METHYL METHACRYLATE
79-41-4	methacrylic acid

##### Proposition 65:

WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

100-42-5	STYRENE C
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#### 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

### 16. Other information

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

<b>H225</b>	Highly flammable liquid and vapour.
<b>H226</b>	Flammable liquid and vapour.
<b>H361</b>	Suspected of damaging fertility or the unborn child.
<b>H300</b>	Fatal if swallowed.
<b>H311</b>	Toxic in contact with skin.
<b>H302</b>	Harmful if swallowed.
<b>H332</b>	Harmful if inhaled.
<b>H372</b>	Causes damage to organs through prolonged or repeated exposure.
<b>H304</b>	May be fatal if swallowed and enters airways.
<b>H314</b>	Causes severe skin burns and eye damage.
<b>H319</b>	Causes serious eye irritation.
<b>H315</b>	Causes skin irritation.
<b>H335</b>	May cause respiratory irritation.
<b>H317</b>	May cause an allergic skin reaction.



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### 16. Other information ... / >>

**H412** Harmful to aquatic life with long lasting effects.

#### LEGEND:

- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- 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
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy
  
- 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 Department 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.



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### 16. Other information ... / >>

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

#### CALCULATION METHODS FOR CLASSIFICATION

Product classification derives from criteria established by the OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200), unless determined otherwise in Section 11 and 12. The data for evaluation of chemical-physical properties are reported in section 9.

Changes to previous review:

The following sections were modified:

01 / 08 / 09.