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Safety data sheet

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

1.1. Product identifier

SOLIDO TRASPARENTE Product name

COLOURED GLUE IN UNSATURED POLYESTER RESIN Chemical name and synonym

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

Intended use COLOURED GLUE IN UNSATURED POLYESTER RESIN.

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

+39 045 6887593 Tel. Fax +39 045 6862456

e-mail address of the competent person

responsible for the Safety Data Sheet msds@tenax.it

1.4. Emergency telephone number

For urgent inquiries refer to 800.883300 (24h) Centro Antiveleni (Bergamo)

0 800 314 7900 (Turkey) only, or +90 0312 433 70 01 Toxicology Department and

(VR)

Poisons Centre

+98 21 6419306 / +98 21 6405569 Poisons Information Centre (Tehran)

+91 484 4008056 Poison Control Centre (South India)

(011) 642 2417 / (011) 488 3108 Anti-Poison Centre (Johannesburg)

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 EC Regulation 1272/2008 (CLP) (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.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

Flammable liquid, category 3 H226 Flammable liquid and vapour.

Reproductive toxicity, category 2 H361d Suspected of damaging the unborn child.

Specific target organ toxicity - repeated exposure, category 1 Causes damage to organs through prolonged or repeated H372

exposure.

Causes serious eye irritation. Causes skin irritation. Eye irritation, category 2 Skin irritation, category 2

Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:

R phrases: 10-20-36/38-48/20-Repr. Cat. 3 63

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



Tenax Spa

SOLIDO TRASPARENTE

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SECTION 2. Hazards identification.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:





Danger Signal words:

Hazard statements:

Flammable liquid and vapour.

H361d Suspected of damaging the unborn child.

H372 Causes damage to organs through prolonged or repeated exposure

H319 Causes serious eye irritation. H315 Causes skin irritation

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P233 Keep container tightly closed.

P260 Do not breathe dust / fume / gas / mist / vapours / spray.

P280 Wear protective gloves / protective clothing / eye protection / face protection.

P308+P313 IF exposed or concerned; get medical advice. P501

Dispose of contents / container according to applicable law.

STYRENE Contains:

2.3. Other hazards.

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

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant

3.2. Mixtures.

Contains:

Identification. Conc. %. Classification 67/548/FFC. Classification 1272/2008 (CLP).

STYRENE

INDEX.

CAS. 100-42-5 20 - 30 Repr. Cat. 3 R63, R10, Xn R20, Xi R36/38, Xn R48/20, EC. 202-851-5

Flam. Liq. 3 H226, Repr. 2 H361d, Acute Tox. 4 H332, STOT RE 1 H372, Asp. Tox. 1 H304, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Aquatic Chronic 3 H412, Note D

601-026-00-0 01-2119457861-32-0000 Reg. no. PARA-TOLUIDINE POLYETHOXYLATE

CAS. 103671-44-9 Xn R22, Xi R41 Acute Tox. 4 H302, Eye Dam. 1 H318 FC

INDEX.

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. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.



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SECTION 4. First aid measures. .../>>

INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly 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

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.

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.



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SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

BEL AR du 11/3/2002. La liste est mise à jour pour 2010 Belgique

CZE Česká Republika Nařízení vlády č. 361/2007 Sb. kterým se stanoví podmínky ochrany zdraví při práci

DEU MAK-und BAT-Werte-Liste 2012 Deutschland

DNK Danmark Graensevaerdier per stoffer og materialer

INSHT - Límites de exposición profesional para agentes químicos en España 2015 **ESP** España FIN

HTP-arvot 2012. Haitallisiksi tunnetut pitoisuudet - Sosiaali- ja terveysministeriön julkaisuja Suomi

JORF n°0109 du 10 mai 2012 page 8773 texte n° 102 FRA France

GRB United Kingdom EH40/2005 Workplace exposure limits

ΕΦΗΜΕΡΙΣ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ -ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 19 - 9 Φεβρουαρίου 2012 **GRC** Ελλάδα

IRL Éire Code of Practice Chemical Agent Regulations 2011

NLD Nederland Databank of the social and Economic Concil of Netherlands (SER) Values, AF 2011:18

Veiledning om Administrative normer for forurensning i arbeidsatmosfære NOR Norge

POL Polska ROZPORZĄDZENIE MINISTRA PRACY I POLITYKI SPOŁECZNEJ z dnia 16 grudnia 2011r

SVK Slovensko NARIADENIE VLÁDY Slovenskej republiky z 20. júna 2007 SVN Sloveniia Uradni list Republike Slovenije 15. 6. 2007

SWE Sverige Occupational Exposure Limit Values, AF 2011:18

TLV-ACGIH ACGIH 2014



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SECTION 8. Exposure controls/personal protection. />

				S	TYRENE				
reshold Limit Val									
Туре	Country	TWA/8h			STEL/15min				
\	חדו	mg/m3 216	ppm 50	mg/m3 432	ppm		OLZINI		
VLEP	BEL		50		100		SKIN.		
TLV	CZE	1000	00	400 172	40		SKIN.		
AGW	DEU	86	20						
MAK	DEU	86	20	172	40		OLCINI		
TLV	DNK	105	25				SKIN.		
VLA	ESP	86	20	172	40				
HTP	FIN	86	20	430	100				
VLEP	FRA	215	50						
WEL	GRB	430	100	1080	250				
TLV	GRC	425	100	1050	250				
OEL	IRL	85	20	170	40				
OEL	NLD	107							
TLV	NOR	105	25						
NDS	POL	50		200					
NPHV	SVK	86	20	172					
MV	SVN	86	20						
MAK	SWE	43	10	86	20		SKIN.		
TLV-ACGIH		85	20	170	40				
redicted no-effect	concentra	tion - PN	EC.						
Normal value in fresh water							0,028	mg/L	
Normal value in marine water							0,0028	mg/L	
Normal value for fresh water sediment							0,614	mg/Kg	
Normal value for marine water sediment							0,0614	mg/Kg	
Normal value for water, intermittent release							0,04	mg/L	
Normal value of STP microorganisms							5	mg/L	
Normal value for t	he terrestr	ial compa	rtment				0,2	mg/Kg	
lealth - Derived no-	effect leve	el - DNEL	/ DMEL						
	Effec	ects on consumers.				Effects on workers			
Route of exposure	e Acute		cute stemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.				VND	2,1 mg/kg				
Inhalation.	182,75 mg/m3		'4,25 g/m3	VND	85 mg/m3	306 mg/m3	289 mg/m3	VND	10,6 mg/m3
Skin.				VND	343 mg/kg			VND	406 mg/kg

Legend:

(C) = CEILING; INHAL = Inhalable Fraction; RESP = Respirable Fraction; THORA = Thoracic Fraction. VND = hazard identified but no DNEL/PNEC available; NEA = no exposure expected; NPI = no hazard identified.

TLV of solvent mixture: 85 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.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

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 (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 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 (see standard EN 166).



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SECTION 8. Exposure controls/personal protection.

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, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (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.

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

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

YELLOW-RED Colour Odour typical Odour threshold. Not available. Not available Melting point / freezing point. Not available Initial boiling point. Not available. Boiling range Not available. Flash point. 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. insoluble in water Solubility 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):
 28,50 % - 313,46
 g/litre.

 VOC (volatile carbon):
 26,30 % - 289,33
 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.

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

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: 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.

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.



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

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.

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 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.

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

 LD50 (Dermal).
 > 2000 mg/kg Rat

 LC50 (Inhalation).
 11,8 mg/l/4h Rat

SECTION 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.

STYRENE

LC50 - for Fish. 4,02 mg/l/96h Pimephales promelas EC50 - for Crustacea. 4,7 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants. 4,9 mg/l/72h Pseudokirchneriella subcapitata

EC10 for Algae / Aquatic Plants. 0,28 mg/l/72h

12.2. Persistence and degradability.

STYRENE: easily biodegradable.

STYRENE

Solubility in water. 320 mg/l

Rapidly biodegradable.

12.3. Bioaccumulative potential.

STYRENE: no appreciable bioaccumulation potential (log Ko/w 1-3).

STYRENE

Partition coefficient: n-octanol/water. 2,96 BCF 74

12.4. Mobility in soil.

STYRENE: slightly mobile in soil.

STYRENE

Partition coefficient: soil/water. 2,55



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

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.

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 ADR restrictions.

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: UN: 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:

14.5. Environmental hazards.

ADR / RID: NO IMDG: NO IATA: NO

14.6. Special precautions for user.

ADR / RID: Nr. Kemler: 30 Limited Quantity 5 L Tunnel restriction code (D/E)

Special Provision: 640E

IMDG: EMS: F-E, S-E Limited Quantity 5 L

ATA: Cargo: Maximum quantity: 220 L

Cargo: Maximum quantity: 220 L Packaging instructions: 366
Pass.: Maximum quantity: 60 L Packaging instructions: 355

Special Instructions: A

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





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Information not relevant

SECTION 15. Regulatory information.

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

Seveso category.

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

Product.

Point.

Substances in Candidate List (Art. 59 REACH).

 $\underline{\hbox{Substances subject to authorisarion (Annex XIV REACH)}}.$

None

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

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None

Healthcare controls.

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

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. 3 Flammable liquid, category 3 Reproductive toxicity, category 2 Repr. 2 Acute toxicity, category 4

Acute Tox. 4 STOT RE 1 Specific target organ toxicity - repeated exposure, category 1

Asp. Tox. 1 Aspiration hazard, category 1 Eye Dam. 1 Serious eye damage, category 1 Eve Irrit. 2 Eye irritation, category 2 Skin Irrit. 2 Skin irritation, category 2

Aquatic Chronic 3 Hazardous to the aquatic environment, chronic toxicity, category 3

Flammable liquid and vapour.

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 H304 May be fatal if swallowed and enters airways.

H318

Causes serious eye damage H319 Causes serious eye irritation. H315 Causes skin irritation.

H412 Harmful to aquatic life with long lasting effects

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

FLAMMABLE R10

HARMFUL BY INHALATION. R20 R22 HARMFUL IF SWALLOWED. R36/38 IRRITATING TO EYES AND SKIN RISK OF SERIOUS DAMAGE TO EYES **R41**

R48/20 HARMFUL: DANGER OF SERIOUS DAMAGE TO HEALTH BY PROLONGED EXPOSURE THROUGH INHALATION.

Reproductive toxicity, development, category 3 Repr. Cat. 3 POSSIBLE RISK OF HARM TO THE UNBORN CHILD. R63

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road



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

- 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%
- 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 (EU) 1907/2006 (REACH) of the European Parliament
- 4. Regulation (EU) 1272/2008 (CLP) of the European Parliament
- 5. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
- 6. Regulation (EU) 453/2010 of the European Parliament
- 7. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
- 8. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
- 9. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
- 10. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
- 11. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- 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

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.

Changes to previous review:

The following sections were modified:

01 / 02 / 08 / 12 / 16.