

Safety Data Sheet

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

1.1. Product identifier

Product name DERMAPRIMER

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

Intended use Bituminous solvent-based primer

1.3. Details of the supplier of the safety data sheet

Name CASALI S.P.A.
Full address Z.I. C.I.A.F. - CASTELFERRETTI
District and Country 60015 FALCONARA MARITTIMA (AN)
ITALY
Tel. +390719162095
Fax +390719162098
e-mail address of the competent person
responsible for the Safety Data Sheet c.marcantoni@casaligroup.it

1.4. Emergency telephone number

For urgent inquiries refer to +390719162095 (business hours)

2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in Directives 67/548/EEC and 1999/45/EC and/or EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC 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-Xn

R phrases: 11-40-52/53-63-65

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

2.2. Label elements.

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



R11	HIGHLY FLAMMABLE.
R40	LIMITED EVIDENCE OF A CARCINOGENIC EFFECT.
R52/53	HARMFUL TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.
R63	POSSIBLE RISK OF HARM TO THE UNBORN CHILD.
R65	HARMFUL: MAY CAUSE LUNG DAMAGE IF SWALLOWED.
S 2	KEEP OUT OF THE REACH OF CHILDREN.
S13	KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS.
S16	KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.
S36/37	WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES.
S46	IF SWALLOWED, SEEK MEDICAL ADVICE IMMEDIATELY AND SHOW THIS CONTAINER OR LABEL.

CASALI S.P.A.

DERMAPRIMER

Revision nr.3
Dated 13/12/2010
Printed on 14/12/2010
Page n. 2 / 9

Contains: TETRACHLOROETHYLENE
TOLUENE
DICHLOROMETHANE
NAPHTA (PETROL.) HYDRODESULFURIZED HEAVY

2.3. Other hazards.

Information not available.

3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification 67/548/EEC.	Classification 1272/2008 (CLP).
XYLENE (MIXTURE OF ISOMERS)			
CAS. 1330-20-7	9 - 10,5	R10, Xn R20/21, Xi R38, Note C	Flam. Liq. 3 H226, Acute Tox. 4 H332, Acute Tox. 4 H312, Skin Irrit. 2 H315, Note C
EC. 215-535-7			
INDEX. 601-022-00-9			
TETRACHLOROETHYLENE			
CAS. 127-18-4	4,5 - 5	Carc. Cat. 3 R40, N R51/53	Carc. 2 H351, Aquatic Chronic 2 H411
EC. 204-825-9			
INDEX. 602-028-00-4			
TOLUENE			
CAS. 108-88-3	8,5 - 10	Repr. Cat. 3 R63, R67, F R11, Xn R48/20, Xn R65, Xi R38	Flam. Liq. 2 H225, Repr. 2 H361d, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H336
EC. 203-625-9			
INDEX. 601-021-00-3			
DICHLOROMETHANE			
CAS. 75-09-2	4,5 - 5	Carc. Cat. 3 R40	Carc. 2 H351
EC. 200-838-9			
INDEX. 602-004-00-3			
NAPHTA (PETROL.) HYDRODESULFURIZED HEAVY			
CAS. 64742-82-1	24 - 25,5	Xn R65, Note H P	Asp. Tox. 1 H304, Note H P
EC. 265-185-4			
INDEX. 649-330-00-2			
BITUMEN			
CAS. 8052-42-4	47,5 - 50		
EC. 232-490-9			
INDEX. -			

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

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

4. First aid measures.

4.1. Description of first aid measures.

EYES: Irrigate copiously with clean, fresh water for at least 15 minutes. Seek medical advice.

SKIN: Wash immediately with plenty of water. Remove contaminated clothing. If irritation persists, seek medical attention. Wash contaminated clothing before using them again.

INHALATION: Remove to open air. If breathing is irregular, seek medical advice.

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

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.

Follow doctor's orders.

CASALI S.P.A.

DERMAPRIMER

Revision nr.3
Dated 13/12/2010
Printed on 14/12/2010
Page n. 3 / 9

5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING MEDIA

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

EXTINGUISHING MEDIA WHICH SHALL NOT BE USED FOR SAFETY REASONS

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

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

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

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

5.3. Advice for firefighters.

GENERAL INFORMATION

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

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

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

6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

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

6.2. Environmental precautions.

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

6.3. Methods and material for containment and cleaning up.

For liquid products, suck into a suitable container (made of material not incompatible with the product) and soak up any leaked product with absorbent inert material (sand, vermiculite, diatomaceous earth, Kieselguhr, etc). Collect the majority of the remaining material and deposit in containers for disposal. For solid products, use spark proof mechanical tools to collect the leaked product and place in plastic containers. If there are no contraindications, use jets of water to eliminate product residues. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

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

7. Handling and storage.

7.1. Precautions for safe handling.

Avoid the accumulation of electrostatic charges.

Vapours may ignite with explosion, it is therefore necessary to avoid accumulation keeping the windows and doors open, ensuring crossventilation. Without adequate ventilation, the vapours may accumulate at the bottom and ignite at a distance, if triggered off, with the risk of flashback. Keep far away from sources of heat, sparks and bright flames. Do not smoke, use matches or lighters. Keep the containers earthed while decanting and wear antistatic boots.

Vigorous stirring and flow through the pipings and equipment may cause the formation and accumulation of electrostatic charges due to the low conductivity of the product. In order to avoid the risk of fire outbreak and explosion never use compressed air during movement.

7.2. Conditions for safe storage, including any incompatibilities.

Store the containers sealed and in a well ventilated place.

7.3. Specific end use(s).

Information not available.

CASALI S.P.A.

DERMAPRIMER

Revision nr.3
Dated 13/12/2010
Printed on 14/12/2010
Page n. 4 / 9

8. Exposure controls/personal protection.

8.1. Control parameters.

Name	Type	Country	TWA/8h mg/m3	ppm	STEL/15min mg/m3	ppm	
XYLENE (MIXTURE OF ISOMERS)	TLV-ACGIH			100		150	Skin
	OEL	EU	221	50	442	100	Skin
	OEL	IRL		50		100	Skin
	WEL	UK		50		100	Skin
TETRACHLOROETHYLENE	TLV-ACGIH			25		100	Skin
	OEL	IRL		25			Skin
	WEL	UK		50		100	Skin
TOLUENE	TLV-ACGIH			20			Skin
	OEL	EU	192	50	384	100	Skin
	OEL	IRL		50		150	Skin
	WEL	UK		50		150	Skin
DICHLOROMETHANE	TLV-ACGIH			50			Skin
	OEL	IRL		50		300	Skin
	WEL	UK		100		300	Skin
BITUMEN	TLV-ACGIH		0,5				
	OEL	IRL	0,5		10		
	WEL	UK	5		10		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protection equipment, make sure that the workplace is well aired through effective local aspiration or bad air vent. If such operations do not make it possible to keep the concentration of the product below the permitted workplace exposure thresholds a suitable respiratory tract protection must be used. See product label for hazard details during use. Ask your chemical substance suppliers for advice when choosing personal protection equipment. Personal protection equipment must comply with the rules in force indicated below.

HAND PROTECTION

Protect hands with category III (ref. Directive 89/686/EEC and standard EN 374) work gloves, such as those in PVA, butyl, fluoroelastomer or equivalent. The following should be considered when choosing work glove material: degradation, breakage times and permeation. Work glove resistance to preparations should be checked before use, as it can be unpredictable. Gloves' limit depends on the duration of exposure.

EYE PROTECTION

Wear protective airtight goggles (ref. standard EN 166).

SKIN PROTECTION

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

RESPIRATORY PROTECTION

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

The use of breathing protection equipment, such as masks with organic vapour and dust/mist cartridges, is necessary in the absence of technical measures limiting worker exposure. The protection provided by masks is in any case limited.

If the substance in question is odourless or its olfactory threshold is higher than the relative exposure limit and in the event of an emergency, or when exposure levels are unknown or the concentration of oxygen in the workplace is less than 17% volume, wear self-contained, open-circuit compressed air breathing apparatus (ref. standard EN 137) or fresh air hose breathing apparatus for use with full face mask, half mask or mouthpiece (ref. standard EN 138).

An emergency eye washing and shower system must be provided.

The product must be used in a closed cycle, in well-aired environments fitted with strong localised aspiration systems (capture speed > 1.5 m/s), otherwise it is compulsory to use the personal protection equipment indicated and always in well-aired environments fitted with strong localised aspiration systems (capture speed > 1.5 m/s).

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.

CASALI S.P.A.

DERMAPRIMER

Revision nr.3
Dated 13/12/2010
Printed on 14/12/2010
Page n. 5 / 9

9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	liquid
Colour	black
Odour	characteristic of solvent
Odour threshold.	Not available.
pH.	Not available.
Melting or freezing point.	Not available.
Boiling point.	> 70 °C.
Distillation range.	Not available.
Flash point.	14 °C.
Evaporation Rate	Not available.
Flammability of solids and gases	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Specific gravity.	1,100 Kg/l
Solubility	insoluble in water
Partition coefficient: n-octanol/water	Not available.
Ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	Not available.
Reactive Properties	Not available.

9.2. Other information.

VOC (Directive 2004/42/EC) :	63,60 % - 700,00	g/litre.
VOC (volatile carbon) :	0	

10. Stability and reactivity.

10.1. Reactivity.

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

TETRACHLOROETHYLENE: incombustible, however it decomposes above 150°C. Decomposition also occurs due to the action of UV rays and moisture.

TOLUENE: breaks down in sunlight.

DICHLOROMETHANE: decomposes above 120°C. With water and alkalis it may form hydrochloric acid and attack aluminium, copper and alloys.

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.

XYLENE (MIXTURE OF ISOMERS): stable, but may develop violent reactions in the presence of strong oxidising agents such as sulphuric and nitric acids and perchlorates. May form explosive mixtures with the air.

TETRACHLOROETHYLENE: risk of explosion on contact with: alkaline metals, aluminium, alkaline hydroxides, sodium amide. May react violently on contact with: strong bases, strong oxidising agents, alkaline earth metals, light metals, metal powders and zinc oxide.

TOLUENE: risk of explosion on contact with fuming sulphuric acid, nitric acid, silver perchlorates, nitrogen dioxide, non-metal halogenides, acetic acid, organic nitrocompounds. Can form explosive mixtures with the air. May react dangerously with: strong oxidising agents, strong acids, sulphur (in the presence of heat).

DICHLOROMETHANE: risk of explosion on contact with alkaline metals, nitric acid, aluminium (powder), ethanediamine, aluminium chloride, perchloric acid, dinitrogen pentoxide, sodium nitride, n-nitroso n-methylurea, potassium hydroxide. Can react dangerously with: alkaline earth metals, metal powders, sodium amides, potassium tert-butyrate. Can form explosive mixtures with the air.

10.4. Conditions to avoid.

Avoid overheating, electrostatic discharge and all sources of ignition.

DICHLOROMETHANE: avoid exposure to naked flames and hot surfaces.

CASALI S.P.A.

DERMAPRIMER

Revision nr.3
Dated 13/12/2010
Printed on 14/12/2010
Page n. 6 / 9

10.5. Incompatible materials.

DICHLOROMETHANE: aluminium, magnesium powder, sodium, potassium, concentrated nitric acid, caustic agents and strong oxidising agents.

10.6. Hazardous decomposition products.

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

TETRACHLOROETHYLENE: hydrogen chloride, phosgene, chlorine, ethane tetrachloride, other toxic chlorine compounds.

DICHLOROMETHANE: dioxins, phosgenes and hydrochloric acid.

11. Toxicological information.

11.1. Information on toxicological effects.

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 be toxic and damage the foetus development.

The introduction of even small quantities of this liquid into the respiratory system in case of ingestion or vomit may cause bronchopneumonia and pulmonary edema.

XYLENE (MIXTURE OF ISOMERS): has a toxic effect on the CNS (encephalopathies). Irritating to the skin, conjunctivae, cornea and respiratory apparatus.

TETRACHLOROETHYLENE: has a toxic effect on the central and peripheral nervous system, liver, kidneys and heart. Mucous membranes and skin are affected by its irritant effect.

TOLUENE: it has a toxic effect on the central and peripheral nervous system (with encephalopathies and polyneuritis). Irritating to the skin, conjunctivae, cornea and respiratory apparatus.

DICHLOROMETHANE: Acute toxicity in man: cognitive disorders only if inhaled at very high doses; at 200-500 ppm, nausea, vomiting, dizziness, paresthesia, asthenia and headache have been observed. Skin contact causes pain which soon disappears without any burns.

Superficial lesions of the cornea occur on contact with the eyes.

XYLENE (MIXTURE OF ISOMERS)

LC50 (Inhalation): 6350 ppm/4h Rat

LD50 (Oral): 3523 mg/kg Rat

LD50 (Dermal): 4350 mg/kg Rabbit

TETRACHLOROETHYLENE

LC50 (Inhalation): 4000 ppm/4h Rat

TOLUENE

LD50 (Oral): 5580 mg/kg Rat

LD50 (Dermal): 12124 mg/kg Rabbit

LC50 (Inhalation): 28,1 mg/l/4h Rat

DICHLOROMETHANE

LD50 (Oral): 1600 mg/kg Rat

LC50 (Inhalation): 79 mg/l/2h Rat

LD50 (Dermal): > 2000 mg/kg Rat

BITUMEN

LC50 (Inhalation): > 5 mg/l/4h Rat

LD50 (Dermal): > 2000 mg/Kg Rabbit

LD50 (Oral): > 2000 mg/Kg Rat

12. Ecological information.

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

12.1. Toxicity.

TETRACHLOROETHYLENE

EC50 (48h): 18 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

TETRACHLOROETHYLENE: not easily biodegradable.

12.3. Bioaccumulative potential.

TETRACHLOROETHYLENE: low bioaccumulation potential (log Ko/w > 3).

CASALI S.P.A.

DERMAPRIMER

Revision nr.3
Dated 13/12/2010
Printed on 14/12/2010
Page n. 7 / 9

12.4. Mobility in soil.

TETRACHLOROETHYLENE: slightly mobile in soil.

12.5. Results of PBT and vPvB assessment.

Information not available.

12.6. Other adverse effects.

Information not available.

13. Disposal considerations.

13.1. Waste treatment methods.

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

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

CONTAMINATED PACKAGING

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

14. Transport information.

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

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

Road and rail transport:

ADR/RID Class: 3 UN: 1263
Packing Group: II
Label: 3
Nr. Kemler: 33
Limited Quantity: LQ06
Tunnel restriction code: (D/E)
Proper Shipping Name: PAINT or PAINT RELATED MATERIAL
Special Provision: 640D



Carriage by sea (shipping):

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



Transport by air:

IATA: 3 UN: 1263
Packing Group: II
Label: 3
Cargo:
Packaging instructions: 307 Maximum quantity: 60 L
Pass.:
Packaging instructions: 305 Maximum quantity: 5 L
Special Instructions: A3, A72
Proper Shipping Name: PAINT or PAINT RELATED MATERIAL



15. Regulatory information.

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

Seveso category. 7b

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

CASALI S.P.A.

DERMAPRIMER

Revision nr.3
Dated 13/12/2010
Printed on 14/12/2010
Page n. 8 / 9

Point. 3 - 40

Contained substance.

Point.	48	TOLUENE
Point.	59	DICHLOROMETHANE
Point.		NAPHTA (PETROL.) HYDRODESULFURIZED HEAVY

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Healthcare controls.

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

VOC (Directive 2004/42/EC) :

Binding primers.

VOC given in g/litre of product in a ready-to-use condition :

Limit value: 750,00 (2010)

VOC of product : 700,00

15.2. Chemical safety assessment.

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

16. Other information.

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

Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Irrit. 2	Skin irritation, category 2
Carc. 2	Carcinogenicity, category 2
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity category 2
Flam. Liq. 2	Flammable liquid, category 2
Repr. 2	Reproductive toxicity, category 2
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H332	Harmful if inhaled.
H312	Harmful in contact with skin.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
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	HARMFUL BY INHALATION AND IN CONTACT WITH SKIN.
R38	IRRITATING TO SKIN.
R40	LIMITED EVIDENCE OF A CARCINOGENIC EFFECT.
R48/20	HARMFUL: DANGER OF SERIOUS DAMAGE TO HEALTH BY PROLONGED EXPOSURE THROUGH INHALATION.
R51/53	TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.
R63	POSSIBLE RISK OF HARM TO THE UNBORN CHILD.
R65	HARMFUL: MAY CAUSE LUNG DAMAGE IF SWALLOWED.
R67	VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS.

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments

CASALI S.P.A.	Revision nr.3 Dated 13/12/2010 Printed on 14/12/2010 Page n. 9 / 9
DERMAPRIMER	

3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. The Merck Index. - 10th Edition
8. Handling Chemical Safety
9. Niosh - Registry of Toxic Effects of Chemical Substances
10. INRS - Fiche Toxicologique (toxicological sheet)
11. Patty - Industrial Hygiene and Toxicology
12. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product .

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Changes to previous review:

The following sections were modified:

02 / 09.