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NAUTILUS EPOXY PRIMER Component B - SAFETY DATA SHEET - february 2020 - 058-B0 - rev. 1/2020

Safety Data Sheet

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

1.1. Product identifier

Product name	COMPONENTE B PER NAUTILUS EPOXY PRIMER
Chemical name and synonym	INDURITORE PER EPOSSIDICI

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

Intended use	VERNICI / SMALTI NAUTICA-MARINA
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Identified Uses	Industrial	Professional	Consumer
Paint product for boating			
Paint product for industrial uses		-	-
Prodotto verniciante per nautica indoor			
Paint product for professional use	-		-

1.3 Details of the supplier of the safety data sheet Manufacturer/Supplier:

 Cecchi Gustavo & C. srl - Via M. Coppino 253,
 55049 Viareggio (LU) ITALY www.cecchi.it - info@cecchi.it
1.4 Emergency telephone number:

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- azienda Tel.+39 035 847453

- CAV "

Osp. Pediatrico Bambino Gesù"

Dip. Emergenza e Accettazione DEA,

Roma Piazza Sant'Onofrio, 4 - 00165 06 68593726

- Az. Osp. Univ. Foggia Foggia

V.le Luigi Pinto, 1 - 71122 800183459

- Az. Osp. "A. Cardarelli" Napoli

Via A. Cardarelli, 9 - 80131 081-7472870

- CAV Policlinico "Umberto I" Roma

V.le del Policlinico, 155 -00161 06-49978000

- CAV Policlinico "A. Gemelli" Roma

Largo Agostino Gemelli, 8 -00168 06-3054343

- Az. Osp. "Careggi" U.O. Tossic. Medica Firenze

Largo Brambilla, 3 - 50134 055-7947819

- CAV Centro Nazionale di Info. Tossic. Pavia

Via Salvatore Maugeri, 10- 27100 0382-24444

- Osp. Niguarda Ca' Granda Milano

Piazz. Ospedale Maggiore,3 - 20102 66101029

- Azienda Ospedaliera Papa Giovanni XXII Bergamo

Piazza OMS, 1 - 24127 800883300

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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 (EU) Regulation 2015/830. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Specific target organ toxicity - repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	H335	May cause respiratory irritation.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, chronic toxicity, category 3	H412	Harmful to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms:						
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Signal words:	Danger
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Hazard statements:

H226	Flammable liquid and vapour.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

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Precautionary statements:

P501	Dispose of contents / container to . . .
P102	Keep out of reach of children.
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.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Contains:	XYLENE (MIXTURE OF ISOMERS)
	3-AMINOPROPYLTRI-ETHOXYSILANO
	ISOBUTYL ALCOHOL
	BUTANOL
	ADDOTTO DI POLIAMMINOAMMIDE

Product not intended for uses provided for by Dir. 2004/42/CE.

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**3.2. Mixtures**

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)	
ADDOTTO DI POLIAMMINOAMMIDE			
CAS 68953-09-3	30 ≤ x < 35	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317	
EC 619-774-1			
INDEX -			
XYLENE (MIXTURE OF ISOMERS)			

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CAS 1330-20-7	$25 \leq x < 30$	Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Aquatic Chronic 3 H412, Classification note according to Annex VI to the CLP Regulation: C
EC 215-535-7		
INDEX 601-022-00-9		
Reg. no. 01-2119488216-32-XXXX		
ISOBUTYL ALCOHOL		
CAS 78-83-1	$10 \leq x < 13$	Flam. Liq. 3 H226, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335, STOT SE 3 H336
EC 201-148-0		
INDEX 603-108-00-1		
Reg. no. 01-2119484609-23		
4-METHYLPENTAN-2-ONE		
CAS 108-10-1	$10 \leq x < 13$	Flam. Liq. 2 H225, Acute Tox. 4 H332, Eye Irrit. 2 H319, STOT SE 3 H335, EUH066
EC 203-550-1		
INDEX 606-004-00-4		
Reg. no. 01-2119473980-30		
3-AMINOPROPYLTRI-ETHOXYSILANO		
CAS 919-30-2	$6 \leq x < 7$	Acute Tox. 4 H302, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317
EC 213-048-4		
INDEX 612-108-00-0		
Reg. no. 01-2119480479-24-0001		
XYLENE (MIXTURE OF ISOMERS)		
CAS 1330-20-7	$6 \leq x < 7$	Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Aquatic Chronic 3 H412, Classification note according to Annex VI to the CLP Regulation: C
EC 215-535-7		
INDEX 601-022-00-9		
Reg. no. 01-2119488216-32-XXXX		
BUTANOL		
CAS 71-36-3	$4 \leq x < 5$	Flam. Liq. 3 H226, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335, STOT SE 3 H336
EC 200-751-6		
INDEX 603-004-00-6		
Reg. no. 01-2119484630-38-xxxx		

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 30-60 minutes, opening the eyelids fully. Get medical

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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

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

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

UNSUITABLE EXTINGUISHING EQUIPMENT

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

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

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

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

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

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

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

Send away individuals who are not suitably equipped. Use explosion-proof equipment. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

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NAUTILUS EPOXY PRIMER Component B - SAFETY DATA SHEET - february 2020 - 058-B0 - rev. 1/2020

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.

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 cool and 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.

Storage class TRGS 510 (Germany):

3

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

DEU	Deutschland	TRGS 900 - Seite 1 von 69 (Fassung 29.03.2019)- Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte
ESP	España	LÍMITES DE EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2019 (INSST)
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Third edition,published 2018)
ITA	Italia	DIRETTIVA (UE) 2017/164 DELLA COMMISSIONE del 31 gennaio 2017
NLD	Nederland	Regeling van de Staatssecretaris van Sociale Zaken en Werkgelegenheid van 13 juli 2018, 2018-0000118517 tot wijziging van de Arbeidsomstandighedenregeling in verband met de implementatie van Richtlijn 2017/164 in Bijlage XIII

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POL	Polska	ROZPORZĄDZENIE MINISTRA RODZINY, PRACY I POLITYKI SPOŁECZNEJ z dnia 12 czerwca 2018 r
PRT	Portugal	Ministério da Economia e do Emprego Consolida as prescrições mínimas em matéria de protecção dos trabalhadores contra os riscos para a segurança e a saúde devido à exposição a agentes químicos no trabalho - Diário da República, 1.ª série - N.º 111 - 11 de junho de 2018
ROU	România	HOTĂRÂRE nr. 584 din 2 august 2018 pentru modificarea Hotărârii Guvernului nr. 1.218/2006 privind stabilirea cerințelor minime de securitate și sănătate în muncă pentru asigurarea protecției lucrătorilor împotriva riscurilor legate de prezența agenților chimici
EU	OEL EU	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 91/322/EEC.
	TLV-ACGIH	ACGIH 2019

XYLENE (MIXTURE OF ISOMERS)**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	440	100	880	200	SKIN
MAK	DEU	440	100	880	200	SKIN
VLA	ESP	221	50	442	100	SKIN
VLEP	FRA	221	50	442	100	SKIN
WEL	GBR	220	50	441	100	
VLEP	ITA	221	50	442	100	SKIN
TGG	NLD	210		442		SKIN
NDS/NDSch	POL	100				
OEL	EU	221	50	442	100	SKIN
TLV-ACGIH		434	100	651	150	
Predicted no-effect concentration - PNEC						
Normal value in fresh water				0,327		mg/l
Normal value in marine water				0,327		mg/l
Normal value for fresh water sediment				12,46		mg/kg
Normal value for marine water sediment				12,46		mg/kg
Normal value of STP microorganisms				6,58		mg/l
Normal value for the terrestrial compartment				2,31		mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Chronic systemic	Effects on workers		
	Acute local	Acute systemic	Chronic local		Acute local	Acute systemic	Chronic local
Oral				1,6 mg/kg bw/d			
Inhalation	174 mg/m3	174 mg/m3		14,8 mg/m3	289 mg/m3	289 mg/m3	77 mg/m3
Skin		108 mg/kg bw/d				180 mg/kg bw/d	

4-METHYLPENTAN-2-ONE**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	83	20	166	40	SKIN

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MAK	DEU	83	20	166	40	SKIN	
VLA	ESP	83	20	208	50		
VLEP	FRA	83	20	208	50		
WEL	GBR	208	50	416	100	SKIN	
VLEP	ITA	83	20	208	50		
TGG	NLD	104		208			
NDS/NDSch	POL	83		200			
VLE	PRT	83	20	208	50		
OEL	EU	83	20	208	50		
TLV-ACGIH		82	20	307	75		

Predicted no-effect concentration - PNEC

Normal value in fresh water	600	µg/L	
Normal value in marine water	60	µg/L	
Normal value for fresh water sediment	8,27	mg/kg/d	
Normal value for marine water sediment	830	µg/kg/dw	
Normal value for water, intermittent release	1,5	mg/l	
Normal value of STP microorganisms	27,5	mg/l	
Normal value for the terrestrial compartment	1,3	mg/kg/d	

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic NPI	Chronic local	Chronic systemic 4,2 mg/kg/d	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral								
Skin	NPI	NPI			NPI	NPI		

ISOBUTYL ALCOHOL**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	310	100	310 (C)	100 (C)	
MAK	DEU	310	100	310	100	
VLA	ESP	154	50			
VLEP	FRA	150	50			
WEL	GBR	154	50	231	75	
TGG	NLD	150				
NDS/NDSch	POL	100		200		SKIN
TLV	ROU	100	33	200	66	
TLV-ACGIH		152	50			

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,4	mg/l	
Normal value in marine water	0,04	mg/l	

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Normal value for fresh water sediment	1,52	mg/kg d.w	
Normal value for marine water sediment	0,152	mg/kg d.w.	
Normal value for water, intermittent release	11	mg/l	
Normal value of STP microorganisms	10	mg/l	
Normal value for the terrestrial compartment	0,0699	mg/kg d.w	

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral							25 mg/kg d.w.	VND
Inhalation			310 mg/m3	VND			55 mg/m3	VND

3-AMINOPROPYLTRI-ETHOXSILANO

Predicted no-effect concentration - PNEC			
Normal value in fresh water	330	µg/L	
Normal value in marine water	33	µg/L	
Normal value for fresh water sediment	12	mg/kg/d	
Normal value for marine water sediment	120	µg/kg/d	
Normal value for water, intermittent release	3,3	mg/l	
Normal value of STP microorganisms	13	mg/l	
Normal value for the terrestrial compartment	50	µg/kg/d	

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation		17,4 mg/m3		17,4 mg/m3		59 mg/m3		59 mg/m3
Skin		5 mg/kg bw/d		5 mg/kg bw/d		8,3 mg/kg bw/d		8,3 mg/kg bw/d

XYLENE (MIXTURE OF ISOMERS)**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	440	100	880	200	SKIN
MAK	DEU	440	100	880	200	SKIN
VLA	ESP	221	50	442	100	SKIN
VLEP	FRA	221	50	442	100	SKIN
WEL	GBR	220	50	441	100	SKIN
VLEP	ITA	221	50	442	100	SKIN
TGG	NLD	210		442		SKIN
NDS/NDSch	POL	100		200		SKIN
VLE	PRT	221	50	442	100	SKIN
TLV	ROU	221	50	442	100	SKIN

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OEL	EU	221	50	442	100	SKIN		
TLV-ACGIH		434	100	651	150			
Predicted no-effect concentration - PNEC								
Normal value in fresh water				0,327		mg/l		
Normal value in marine water				0,327		mg/l		
Normal value for fresh water sediment				12,46		mg/kg		
Normal value for marine water sediment				12,46		mg/kg		
Normal value of STP microorganisms				6,58		mg/l		
Normal value for the terrestrial compartment				2,31		mg/kg		
Health - Derived no-effect level - DNEL / DMEL								
	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				1.6 mg/kg bw/d				180 mg/kg
Inhalation	174 mg/m3	174 mg/m3		14,8 mg/m3	289 mg/m3	289 mg/m3		77 mg/m3
Skin		108 mg/kg bw/d						180 mg/kg bw/d

BUTANOL**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	310	100	310	100	
MAK	DEU	310	100	310	100	
VLA	ESP	61	20	154	50	
VLEP	FRA			150	50	
WEL	GBR			154	50	SKIN
TGG	NLD			45		
NDS/NDSch	POL	50		150		SKIN
TLV	ROU	100	33	200	66	
TLV-ACGIH		61	20			
Predicted no-effect concentration - PNEC						
Normal value in fresh water				82		µg/L
Normal value in marine water				8,2		µg/L
Normal value for fresh water sediment				324		µg/kg/dw
Normal value for marine water sediment				32,4		µg/kg/dw
Normal value for water, intermittent release				2,25		mg/l
Normal value of STP microorganisms				2476		g/l
Normal value for the terrestrial compartment				16,6		µg/kg/dw
Normal value for the atmosphere				NPI		
Health - Derived no-effect level - DNEL / DMEL						
	Effects on consumers				Effects on workers	



Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				1562 mg/kg bw/d				
Inhalation		NPI	155 mg/m3	55357 mg/m3			310 mg/m3	
Skin				3125 mg/kg bw/d		NPI		

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.

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 II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

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

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

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

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

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

ENVIRONMENTAL EXPOSURE CONTROLS

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

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

Appearance	liquid	
Colour	TRANSPARENT AMBER	
Odour	TYPICAL AMINES	
Odour threshold	Not available	
pH	Not available	
Melting point / freezing point	Not available	
Initial boiling point	> 35 °C	
Boiling range	Not available	
Flash point	> 23 °C	
Evaporation Rate	Not available	
Flammability of solids and gases	Not available	
Lower inflammability limit	Not available	
Upper inflammability limit	Not available	
Lower explosive limit	Not available	
Upper explosive limit	Not available	
Vapour pressure	Not available	
Vapour density	Not available	
Relative density	0,89	
Solubility	20% BY WT IN WATER	
Partition coefficient: n-octanol/water	Not available	
Auto-ignition temperature	Not available	
Decomposition temperature	Not available	
Viscosity	>20,5 mm ² /sec (40°C)	
Explosive properties	Not available	
Oxidising properties	Not available	

9.2. Other information

Total solids (250°C / 482°F)	39,29 %	
VOC (Directive 2010/75/EC) :	60,71 % - 541,63 g/litre	
VOC (volatile carbon) :	48,36 % - 431,49 g/litre	

SECTION 10. Stability and reactivity

10.1. Reactivity

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

4-METHYLPENTAN-2-ONE

Reacts violently with: light metals. Attacks various types of plastic materials.

BUTANOL

Attacks various types of plastic materials.

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)

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.

4-METHYLPENTAN-2-ONE

May react violently with: oxidising agents. Forms peroxides with: air. Forms explosive mixtures with: hot air.

XYLENE (MIXTURE OF ISOMERS)

Stable in normal conditions of use and storage. Reacts violently with: strong oxidants, strong acids, nitric acid, perchlorates. May form explosive mixtures with: air.

BUTANOL

Reacts violently developing heat on contact with: aluminium, strong oxidising agents, strong reducing agents, hydrochloric acid. Forms explosive mixtures with: air.

10.4. Conditions to avoid

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

4-METHYLPENTAN-2-ONE

Avoid exposure to: sources of heat.

BUTANOL

Avoid exposure to: sources of heat, naked flames.

10.5. Incompatible materials

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4-METHYLPENTAN-2-ONE

Incompatible with: oxidising substances, reducing substances.

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

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

XYLENE (MIXTURE OF ISOMERS)

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

XYLENE (MIXTURE OF ISOMERS)

WORKERS: inhalation; contact with the skin.

POPULATION: ingestion of contaminated food or water; inhalation of ambient air.

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

XYLENE (MIXTURE OF ISOMERS)

Toxic effect on the central nervous system (encephalopathy); irritating for the skin, conjunctiva, cornea and respiratory apparatus.

Interactive effects

XYLENE (MIXTURE OF ISOMERS)

Intake of alcohol interferes with the metabolism of the substance, inhibiting it. Ethanol consumption (0.8 g/kg) before a 4-hour exposure to xylene vapours (145 and 280 ppm) causes a 50% reduction in the excretion of methyl hippuric acid, whereas the concentration of xylenes in the blood increases approx. 1.5-2 times. At the same time there is an increase in the secondary side effects of the ethanol. The metabolism of the xylenes is increased by phenobarbital and 3-methyl-colantrene type enzyme inducers. Aspirin and xylenes mutually inhibit their conjugation with the glycine, which results in a decrease in urinary excretion of methyl hippuric acid. Other industrial products can interfere with the metabolism of xylenes.

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:

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> 20 mg/l

LD50 (Oral) of the mixture:

>2000 mg/kg

LD50 (Dermal) of the mixture:

>2000 mg/kg

XYLENE (MIXTURE OF ISOMERS)

LD50 (Oral) 3523 mg/kg Rat

LD50 (Dermal) 4350 mg/kg Rabbit

LC50 (Inhalation) 26 mg/l/4h Rat

ISOBUTYL ALCOHOL

LD50 (Oral) 2460 mg/kg Rat

LD50 (Dermal) 2460 mg/kg Rabbit

LC50 (Inhalation) 18,18 mg/l/4h Rat

BUTANOL

LD50 (Oral) 790 mg/kg Rat

LD50 (Dermal) 3400 mg/kg Rabbit

LC50 (Inhalation) 8000 ppm/4h Rat

4-METHYLPENTAN-2-ONE

LD50 (Oral) 2080 mg/kg Rat

LD50 (Dermal) > 16000 mg/kg Rabbit

LC50 (Inhalation) > 8,2 mg/l/4h Rat

3- AMINOPROPYLTRI-ETHOXSILANO

LD50 (Oral) > 1570 mg/kg ratto

LD50 (Dermal) > 3800 mg/kg coniglio

XYLENE (MIXTURE OF ISOMERS)

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LD50 (Oral) 3500 mg/kg Rat

LD50 (Dermal) 4350 mg/kg Rabbit

LC50 (Inhalation) 26 mg/l/4h Rat

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

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

XYLENE (MIXTURE OF ISOMERS)

Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC).
The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

May cause respiratory irritation

STOT - REPEATED EXPOSURE

May cause damage to organs

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class Viscosity: >20,5 mm²/sec (40°C)

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.

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12.1. Toxicity

XYLENE (MIXTURE OF ISOMERS)		
LC50 - for Fish		> 4,2 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea		> 2,93 mg/l/48h Daphnia Magna

ISOBUTYL ALCOHOL		
LC50 - for Fish		> 1,43 mg/l/96h Pimephales promelas
EC50 - for Crustacea		> 1,1 mg/l/48h Daphnia pulex
EC50 - for Algae / Aquatic Plants		> 3,48 mg/l/72h DAFNIE

BUTANOL		
LC50 - for Fish		> 1730 mg/l/96h PESCI (CAVEDANO AMERICANO)
EC50 - for Crustacea		> 1983 mg/l/48h DAFNIA MAGNA

4-METHYLPENTAN-2-ONE		
LC50 - for Fish		> 179 mg/l/96h
EC50 - for Crustacea		> 200 mg/l/48h

3-AMINOPROPYLTRI-ETHOXY-SILANO		
LC50 - for Fish		> 2208 mg/l/96h pesci
EC50 - for Crustacea		> 331 mg/l/48h Daphnia magna

XYLENE (MIXTURE OF ISOMERS)		
LC50 - for Fish		> 4,2 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea		> 2,93 mg/l/48h Daphnia Magna

12.2. Persistence and degradability

XYLENE (MIXTURE OF ISOMERS)		
Solubility in water		100 - 1000 mg/l

Degradability: information not available

Rapidly degradable

ISOBUTYL ALCOHOL		
Solubility in water		1000 - 10000 mg/l

Rapidly degradable

BUTANOL		
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Solubility in water		1000 - 10000 mg/l
Rapidly degradable		

4-METHYLPENTAN-2-ONE		
Solubility in water		> 10000 mg/l
Degradability: information not available		

Rapidly degradable

XYLENE (MIXTURE OF ISOMERS)		
Solubility in water		100 - 1000 mg/l
Degradability: information not available		

12.3. Bioaccumulative potential

XYLENE (MIXTURE OF ISOMERS)		
Partition coefficient: n-octanol/water		3,12
BCF		25,9

ISOBUTYL ALCOHOL		
Partition coefficient: n-octanol/water		1

BUTANOL		
Partition coefficient: n-octanol/water		1
BCF		3,16

4-METHYLPENTAN-2-ONE		
Partition coefficient: n-octanol/water		1,9

XYLENE (MIXTURE OF ISOMERS)		
Partition coefficient: n-octanol/water		3,12
BCF		25,9

12.4. Mobility in soil

XYLENE (MIXTURE OF ISOMERS)		
Partition coefficient: soil/water		2,73

ISOBUTYL ALCOHOL		
Partition coefficient: soil/water		0,31

BUTANOL		
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Partition coefficient: soil/water		0,388
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4-METHYLPENTAN-2-ONE		
Partition coefficient: soil/water		2,008

XYLENE (MIXTURE OF ISOMERS)		
Partition coefficient: soil/water		2,73

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:	3469						
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14.2. UN proper shipping name

ADR / RID:	PAINTE, FLAMMABLE, CORROSIVE or PAINTE RELATED MATERIAL, FLAMMABLE, CORROSIVE						
IMDG:	PAINTE, FLAMMABLE, CORROSIVE or PAINTE RELATED MATERIAL, FLAMMABLE, CORROSIVE						
IATA:	PAINTE, FLAMMABLE, CORROSIVE or PAINTE RELATED MATERIAL, FLAMMABLE, CORROSIVE						

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)				
IMDG:	Class: 3	Label: 3 (8)				
IATA:	Class: 3	Label: 3 (8)				

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14.4. Packing group

ADR / RID, IMDG, IATA:	III					
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14.5. Environmental hazards

ADR / RID:	NO				
IMDG:	NO				
IATA:	NO				

14.6. Special precautions for user

ADR / RID:		HIN - Kemler: 38		Limited Quantities: 5 L	Tunnel restriction code: (D/E)
		Special Provision: -			
IMDG:		EMS: F-E, S-C		Limited Quantities: 5 L	
IATA:		Cargo:		Maximum quantity: 60 L	Packaging instructions: 365
		Pass.:		Maximum quantity: 5 L	Packaging instructions: 354
		Special Instructions:		A3, A72, A192, A803	

14.7. Transport in bulk according to Annex II of Marpol 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**

Seveso Category - Directive 2012/18/EC: P5c

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

Product

Point	3 - 40	
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Substances in Candidate List (Art. 59 REACH)

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

Substances subject to authorisation (Annex XIV REACH)

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None

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

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

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.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 2: Hazard to waters

15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances

XYLENE (MIXTURE OF ISOMERS)

4-METHYLPENTAN-2-ONE

ISOBUTYLALCOHOL

XYLENE (MIXTURE OF ISOMERS)

SECTION 16. Other information

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

Flam. Liq. 2	Flammable liquid, category 2	
Flam. Liq. 3	Flammable liquid, category 3	
Acute Tox. 4	Acute toxicity, category 4	
Asp. Tox. 1	Aspiration hazard, category 1	
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2	
Skin Corr. 1B	Skin corrosion, category 1B	

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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	
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3	
H225	Highly flammable liquid and vapour.	
H226	Flammable liquid and vapour.	
H302	Harmful if swallowed.	
H312	Harmful in contact with skin.	
H332	Harmful if inhaled.	
H304	May be fatal if swallowed and enters airways.	
H373	May cause damage to organs through prolonged or repeated exposure.	
H314	Causes severe skin burns and eye damage.	
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.	
H336	May cause drowsiness or dizziness.	
H412	Harmful to aquatic life with long lasting effects.	
EUH066	Repeated exposure may cause skin dryness or cracking.	

LEGEND:

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

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- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
 3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
 4. Regulation (EU) 2015/830 of the European Parliament
 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
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 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
 10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
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 15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
 16. Regulation (EU) 2019/521 (XII Atp. CLP)
- The Merck Index. - 10th Edition
 - Handling Chemical Safety
 - INRS - Fiche Toxicologique (toxicological sheet)
 - Patty - Industrial Hygiene and Toxicology
 - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
 - IFA GESTIS website
 - ECHA website
 - Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

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.

Product's classification is based on the calculation methods set out in Annex I of the CLP Regulation, unless otherwise indicated in sections 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:

02 / 03 / 08 / 09 / 10 / 11 / 12 / 14 / 15.