Safety Data Sheet

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

1.1. Product identifier

Code: **IDEALCOLOR25 Part "A" (5 KG)**

Product name

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

Intended use **Epoxy primer**

1.3 Details of the supplier of the safety data sheet

Company name **IDEAL WORK SRL**

Address **Via Kennedy, 52**

Place and country **31030 Vallà di Riese Pio X (TV)**
Italy
tel. +39 0423 /4535
fax +39 0423 /748429

e-mail address for a competent person, responsible for the safety data sheet **sicurezza@idealwork.it**

1.4 Emergency telephone number

For information in an emergency **Poison center:**
National Poisons Information Service (Birmingham Unit) City Hospital
Dudley Rd Birmingham
Telephone: +44 121 507 4123
Fax: +44 121 507 55 88
Emergency telephone: 844 892 0111

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.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Eye irritation, category 2	H319	Causes serious eye irritation.
Skin irritation, category 2	H315	Causes skin 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:

Signal words: Warning

Hazard statements:

H226	Flammable liquid and vapour.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

H412	Harmful to aquatic life with long lasting effects.
EUH205	Contains epoxy constituents. May produce an allergic reaction.

Precautionary statements:

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P261	Avoid breathing dust / fume / gas / mist / vapours / spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves / eye protection / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P370+P378	In case of fire: use appropriate means to extinguish.
P501	Dispose of contents / container in accordance with local / regional / national / international.

Contains: reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700).

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	x = Conc. %	Classification 1272/2008 (CLP)
Barium sulfate (58,8% - metallic element)		
CAS 7727-43-7	30 ≤ x < 50	
EC 231-784-4		
INDEX -		
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700).		
CAS 25068-38-6	10 ≤ x < 30	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411
EC 500-033-5		
INDEX 603-074-00-8		
Reg. no. 01-2119456619-26		
Xylene isomers		
CAS 1330-20-7	10 ≤ x < 30	Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Irrit. 2 H315, Note C
EC 215-535-7		
INDEX 601-022-00-9		
Reg. no. 01-2119488216-32		
Talc		
CAS 14807-96-6	1 ≤ x < 5	Acute Tox. 4 H332, STOT SE 3 H335
EC 238-877-9		
INDEX -		
Toluene		
CAS 108-88-3	1 ≤ x < 3	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		
Reg. no. 01-2119471310-51		
2-methoxy-1-methylethyl acetate		
CAS 108-65-6	1 ≤ x < 3	Flam. Liq. 3 H226
EC 203-603-9		
INDEX 607-195-00-7		
Reg. no. 01-2119475791-29		
Acetone		
CAS 67-64-1	1 ≤ x < 3	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC 200-662-2		
INDEX 606-001-00-8		
Reg. no. 01-2119471330-49		
n-Butyl Acetate		
CAS 123-86-4	1 ≤ x < 3	Flam. Liq. 3 H226, STOT SE 3 H336, EUH066
EC 204-658-1		
INDEX 607-025-00-1		
Reg. no. 01-2119485493-29		
Methanol		
CAS 67-56-1	0 ≤ x < 0,05	Flam. Liq. 2 H225, Acute Tox. 3 H301, Acute Tox. 3 H311, Acute Tox. 3 H331, STOT SE 1 H370
EC 200-659-6		
INDEX 603-001-00-X		
Reg. no. 01-2119433307-44		
Mesitylene		
CAS 108-67-8	0 ≤ x < 0,05	Flam. Liq. 3 H226, STOT SE 3 H335, Aquatic Chronic 2 H411
EC 203-604-4		
INDEX 601-025-00-5		
1,2,4-trimethylbenzene		
CAS 95-63-6	0 ≤ x < 0,05	Flam. Liq. 3 H226, Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Aquatic Chronic 2 H411
EC 202-436-9		
INDEX 601-043-00-3		
Butanone		
CAS 78-93-3	0 ≤ x < 0,05	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC 201-159-0		
INDEX 606-002-00-3		
Reg. no. 01-2119457290-43		
2-butoxyethanol		
CAS 111-76-2	0 ≤ x < 0,05	Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315
EC 203-905-0		

INDEX 603-014-00-0

Reg. no. 01-2119475108-36

Cumene

CAS 98-82-8	0 ≤ x < 0,05	Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT SE 3 H335, Aquatic Chronic 2 H411, Note C

EC 202-704-5

INDEX 601-024-00-X

Reg. no. 01-2119473983-24

Impurity:

Ethylbenzene

CAS 100-41-4	0 ≤ x < 0,05	Flam. Liq. 2 H225, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373

EC 202-849-4

INDEX 601-023-00-4

Reg. no. 01-2119489370-35

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

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. 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.
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

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. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

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. If the product is flammable, use explosion-proof equipment. 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 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

SECTION 8. Exposure controls/personal protection

8.1. Control parameters
Regulatory References:

AUS	Österreich	Grenzwerteverordnung 2011 - GKV 2011
BEL	Belgique	AR du 11/3/2002. La liste est mise à jour pour 2010
BGR	България	МИНИСТЕРСТВО НА ТРУДА И СОЦИАЛНАТА ПОЛИТИКА МИНИСТЕРСТВО НА ЗДРАВЕОПАЗВАНЕТО НАРЕДБА No 13 от 30 декември 2003 г
CHE	Suisse / Schweiz	Valeurs limites d`exposition aux postes de travail 2014. / Grenzwerte am Arbeitsplatz
CZE	Česká Republika	Nařízení vlády č. 361/2007 Sb. kterým se stanoví podmínky ochrany zdraví při práci
DEU	Deutschland	MAK-und BAT-Werte-Liste 2012
DNK	Danmark	Graensevaerdier per stoffer og materialer
ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
EST	Eesti	Töökeskkonna keemiliste ohutegurite piirnormid 1. Vastu võetud 18.09.2001 nr 293 RT I 2001, 77, 460 - Redaktsiooni jõustumise kp: 01.01.2008
FIN	Suomi	HTP-arvot 2012. Haitallisiksi tunnetut pitoisuudet - Sosiaali- ja terveysministeriön julkaisuja 2012:5
FRA	France	JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
GBR	United Kingdom	EH40/2005 Workplace exposure limits
GRC	Ελλάδα	ΕΦΗΜΕΡΙΣ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ -ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 19 - 9 Φεβρουαρίου 2012
HRV	Hrvatska	NN13/09 - Ministarstvo gospodarstva, rada i poduzetništva
HUN	Magyarország	50/2011. (XII. 22.) NGM rendelet a munkahelyek kémiai biztonságáról
IRL	Éire	Code of Practice Chemical Agent Regulations 2011
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
LTU	Lietuva	DĖL LIETUVOS HIGIENOS NORMOS HN 23:2007 CHEMINIŲ MEDŽIAGŲ 2007 m. spalio 15 d. Nr. V-827/A1-287

LVA	Latvija	Ķīmisko vielu aroda ekspozīcijas robežvērtības (AER) darba vides gaisā 2012
NLD	Nederland	Databank of the social and Economic Concil of Netherlands (SER) Values, AF 2011:18
NOR	Norge	Veiledning om Administrative normer for forurensning i arbeidsatmosfære
POL	Polska	ROZPORZĄDZENIE MINISTRA PRACY I POLITYKI SPOŁECZNEJ z dnia 16 grudnia 2011r
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 - Diaro da Republica I 26; 2012-02-06
SVK	Slovensko	NARIADENIE VLÁDY Slovenskej republiky z 20. júna 2007
SWE	Sverige	Occupational Exposure Limit Values, AF 2011:18
TUR	Türkiye	2000/39/EC sayılı Direktifin ekidir
EU	OEL EU	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 2016

Barium sulfate

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLEP	BEL	10				
AGW	DEU	1,5				RESP
VLA	ESP	10				INHAL
WEL	GBR	4				

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,115	mg/l

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700).

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,006	mg/l
Normal value in marine water	0,001	mg/l
Normal value for fresh water sediment	0,996	mg/kg
Normal value for marine water sediment	0,1	mg/kg
Normal value for water, intermittent release	0,018	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	11	mg/kg
Normal value for the terrestrial compartment	0,196	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
Oral	VND	0,75 mg/kg bw/d	VND	0,75 mg/kg bw/d				
Inhalation					VND	12,25 mg/m3	VND	12,25 mg/m3
Skin	VND	3,571 mg/kg bw/d	VND	3,571 mg/kg bw/d	VND	8,33 mg/kg bw/d	VND	8,33 mg/kg bw/d

Xylene isomers

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
MAK	AUS	221	50	442	100
VLEP	BEL	221	50	442	100
MAK	CHE	435	100	870	200
AGW	DEU	440	100	880	200
TLV	DNK	109	25	218	50
VLA	ESP	221	50	442	100
VLEP	FRA	221	50	442	100
WEL	GBR	220	50	441	100
VLEP	ITA	221	50	442	100

MAC	NLD	210		442					
MAK	SWE	221	50	442	100				
OEL	EU	221	50	442	100				

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/d
Normal value for marine water sediment	12,46	mg/kg/d
Normal value for water, intermittent release	0,327	mg/l
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				Effects on workers			
Oral			VND	1,6 mg/kg bw/d				
Inhalation	174 mg/m3	174 mg/m3	VND	14,8 mg/m3	289 mg/m3	289 mg/m3	VND	77 mg/m3
Skin			VND	108 mg/kg bw/d			VND	180 mg/kg bw/d

Talc

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min			
		mg/m3	ppm	mg/m3	ppm		
MAK	AUS	2				RESP	
VLEP	BEL	2					
MAK	CHE	2				RESP	
VLA	ESP	2					
WEL	GBR	1					

Predicted no-effect concentration - PNEC		
Normal value in fresh water	597,97	mg/l
Normal value in marine water	141,26	mg/l
Normal value for fresh water sediment	31,33	mg/kg
Normal value for marine water sediment	3,13	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
Oral		160 mg/kg bw/d		160 mg/kg bw/d				
Inhalation	1,8 mg/m3	1,08 mg/m3	1,8 mg/m3	1,08 mg/m3	3,6 mg/m3	2,16 mg/m3	3,6 mg/m3	2,16 mg/m3
Skin			2,27 mg/cm2	21,6 mg/kg bw/d			4,54 mg/cm2	43,2 mg/kg bw/d

Toluene

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
MAK	AUS	190	50	380	100
VLEP	BEL	77	20	384	100
AGW	DEU	190	50	760	200
TLV	DNK	94	25	188	50
VLA	ESP	191	50	384	100
VLEP	FRA	76,8	20	384	100
WEL	GBR	191	50	384	100
VLEP	ITA	192	50		

MAK	SWE	192	50	384	100				
OEL	EU	192	50	384	100				

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,68	mg/l
Normal value in marine water	0,68	mg/l
Normal value for fresh water sediment	16,39	mg/kg
Normal value for marine water sediment	16,39	mg/kg
Normal value of STP microorganisms	13,61	mg/l
Normal value for the terrestrial compartment	2,89	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
Oral				8,13 mg/kg bw/d				
Inhalation	226 mg/m3	226 mg/m3	56,5 mg/m3	56,5 mg/m3	384 mg/m3	384 mg/m3	192 mg/m3	192 mg/m3
Skin				226 mg/kg bw/d				384 mg/kg bw/d

2-methoxy-1-methylethyl acetate

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
MAK	AUS	275	50	550	100
VLEP	BEL	275	50	550	100
MAK	CHE	275	50	275	50
AGW	DEU	270	50	270	50
VLA	ESP	275	50	550	100
VLEP	FRA	275	50	550	100
WEL	GBR	274	50	548	100
VLEP	ITA	275	50	550	100
MAC	NLD	550			
MAK	SWE	275	50	550	100
OEL	EU	275	50	550	100

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,635	mg/l
Normal value in marine water	0,064	mg/l
Normal value for fresh water sediment	3,29	mg/kg
Normal value for marine water sediment	0,329	mg/kg
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,29	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
Oral				36 mg/kg bw/d				
Inhalation			33 mg/m3	33 mg/m3	550 mg/m3		33	275 mg/m3
Skin				320 mg/kg bw/d				796 mg/kg bw/d

Acetone

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
MAK	AUS	1200	500	4800	2000

VLEP	BEL	1210	500	2420	1000				
MAK	CHE	1200	500	2400	1000				
AGW	DEU	1200	500	2400	1000				
TLV	DNK	600	250	1200	500				
VLA	ESP	1210	500						
VLEP	FRA	1210	500	2420	1000				
WEL	GBR	1210	500	3620	1500				
VLEP	ITA	1210	500						
MAC	NLD	1210		2420					
MAK	SWE	600	250	1200	500				
OEL	EU	1210	500						

Predicted no-effect concentration - PNEC		
Normal value in fresh water	10,6	mg/l
Normal value in marine water	1,06	mg/l
Normal value for fresh water sediment	30,4	mg/kg
Normal value for marine water sediment	3,04	mg/kg
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	29,5	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
Oral				62 mg/kg bw/d				
Inhalation				200 mg/m3	2420 mg/m3			1210 mg/m3
Skin				62 mg/kg bw/d				186 mg/kg bw/d

n-Butyl Acetate

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
MAK	AUS	480	100	480	100
VLEP	BEL	723	150	964	200
MAK	CHE	480	100	960	200
MAK	DEU	480	100	960	200
VLA	ESP	724	150	965	200
VLEP	FRA	710	150	940	200
WEL	GBR	724	150	966	200
TLV-ACGIH			50		150

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,18	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	0,981	mg/kg
Normal value for marine water sediment	0,098	mg/kg
Normal value of STP microorganisms	35,6	mg/l
Normal value for the terrestrial compartment	0,09	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
Oral		2 mg/kg bw/d		2 mg/kg bw/d				
Inhalation	300 mg/m3	300 mg/m3	35,7 mg/m3	35,7 mg/m3	600 mg/m3	600 mg/m3	300 mg/m3	300 mg/m3
Skin		6 mg/kg bw/d		6 mg/kg bw/d		11 mg/kg bw/d		11 mg/kg bw/d

Cumene

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	100	20	250	50	
VLEP	BEL	100	20	250	50	
MAK	CHE	100	20	400	80	
AGW	DEU	50	10	200	40	
TLV	DNK	100	20	200	40	
VLA	ESP	100	20	250	50	
VLEP	FRA	100	20	250	50	
WEL	GBR	125	25	375	75	
VLEP	ITA	100	20	250	50	
MAC	NLD	100		250		
MAK	SWE	120	25	250	50	
OEL	EU	100	20	250	50	SKIN

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,035	mg/l
Normal value in marine water	0,004	mg/l
Normal value for fresh water sediment	3,22	mg/kg
Normal value for marine water sediment	0,322	mg/kg
Normal value of STP microorganisms	200	mg/l
Normal value for the terrestrial compartment	0,624	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers		Effects on workers	
Oral	5 mg/kg bw/d			
Inhalation	16,6 mg/m3		250 mg/m3	100 mg/m3
Skin	1,2 mg/kg bw/d			15,4 mg/kg bw/d

2-butoxyethanol

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	98	20	200	40	
VLEP	BEL	98	20	246	50	
MAK	CHE	49	10	98	20	
AGW	DEU	49	10	196	40	
TLV	DNK	98	20	196	40	
VLA	ESP	98	20	245	50	
VLEP	FRA	49	10	246	50	
WEL	GBR	123	25	246	50	
VLEP	ITA	98	20	246	50	
MAC	NLD	100		246		
MAK	SWE	50	10	246	50	
OEL	EU	98	20	246	50	SKIN

Predicted no-effect concentration - PNEC		
Normal value in fresh water	8,8	mg/l
Normal value in marine water	0,88	mg/l

Normal value for fresh water sediment	34,6	mg/kg
Normal value for marine water sediment	3,46	mg/kg
Normal value of STP microorganisms	463	mg/l
Normal value for the food chain (secondary poisoning)	0,02	mg/kg
Normal value for the terrestrial compartment	2,33	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers		
Oral		26,7 mg/kg bw/d		6,3 mg/kg bw/d		
Inhalation	147 mg/m3	426 mg/m3		59 mg/m3	246 mg/m3	1091 mg/m3	98 mg/m3
Skin		89 mg/kg bw/d		75 mg/kg bw/d		89 mg/kg bw/d	125 mg/kg bw/d

Butanone

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
MAK	AUS	295	100	590	200
VLEP	BEL	600	200	900	300
MAK	CHE	590	200	590	200
AGW	DEU	600	200	600	200
TLV	DNK	145	50	290	100
VLA	ESP	600	200	900	300
VLEP	FRA	600	200	900	300
WEL	GBR	600	200	899	300
VLEP	ITA	600	200	900	300
MAC	NLD	590		900	
MAK	SWE	150	50	900	300
OEL	EU	600	200	900	300

Predicted no-effect concentration - PNEC

Normal value in fresh water	55,8	mg/l
Normal value in marine water	55,8	mg/l
Normal value for fresh water sediment	284,74	mg/kg
Normal value for marine water sediment	284,7	mg/kg
Normal value for water, intermittent release	55,8	mg/l
Normal value of STP microorganisms	709	mg/l
Normal value for the food chain (secondary poisoning)	1000	mg/kg
Normal value for the terrestrial compartment	22,5	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers		
Oral		VND	31 mg/kg bw/d			
Inhalation		VND	106 mg/m3		VND	600 mg/m3
Skin		VND	412 mg/kg bw/d		VND	1161 mg/kg bw/d

Ethylbenzene

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
MAK	AUS	440	100	880	200
VLEP	BEL	442	100	551	125

MAK	CHE	435	100	435	100
AGW	DEU	88	20	176	40
TLV	DNK	217	50	434	100
VLA	ESP	441	100	884	200
VLEP	FRA	88,4	20	442	100
WEL	GBR	441	100	552	125
VLEP	ITA	442	100	884	200
MAC	NLD	215		430	
MAK	SWE	220	50	884	200
OEL	EU	442	100	884	200

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,1	mg/l
Normal value in marine water	0,01	mg/l
Normal value for fresh water sediment	13,7	mg/kg
Normal value for marine water sediment	1,37	mg/kg
Normal value for water, intermittent release	0,1	mg/l
Normal value of STP microorganisms	9,6	mg/l
Normal value for the food chain (secondary poisoning)	20	mg/kg
Normal value for the terrestrial compartment	2,68	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers		
Oral	VND	1,6 mg/kg bw/d				
Inhalation	VND	15 mg/m3	293 mg/m3	VND	VND	77 mg/m3
Skin					VND	180 mg/kg bw/d

1,2,4-trimethylbenzene

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
MAK	AUS	100	20	150	30
VLEP	BEL	100	20		
AGW	DEU	100	20	200	40
TLV	DNK	100	20	200	40
VLA	ESP	100	20		
VLEP	FRA	100	20	250	50
VLEP	ITA	100	20		
MAC	NLD	100		200	
OEL	EU	100	20		

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,12	mg/l
Normal value in marine water	0,12	mg/l
Normal value for fresh water sediment	13,56	mg/kg
Normal value for marine water sediment	13,56	mg/kg
Normal value of STP microorganisms	2,41	mg/l
Normal value for the terrestrial compartment	2,34	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers		Effects on workers
Oral		15 mg/kg	

Inhalation Skin	29,4 mg/m3	29,4 mg/m3	29,4 mg/m3	bw/d 29,4 mg/m3 9512 mg/kg bw/d	100 mg/m3	100 mg/m3	100 mg/m3	100 mg/m3 16171 mg/kg bw/d

Mesitylene

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLEP	BEL	100	20			
AGW	DEU	100	20	200	40	
TLV	DNK	100	20	200	40	
VLA	ESP	100	20			
VLEP	FRA	100	20	250	50	
VLEP	ITA	100	20			
MAC	NLD	100		200		
ESD	TUR	100	20			

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,101	mg/l
Normal value in marine water	0,101	mg/l
Normal value for fresh water sediment	7,86	mg/kg
Normal value for marine water sediment	7,86	mg/kg
Normal value of STP microorganisms	2,02	mg/l
Normal value for the terrestrial compartment	1,34	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
Oral				15 mg/kg bw/d				
Inhalation Skin	29,4 mg/m3	29,4 mg/m3	29,4 mg/m3	29,4 mg/m3 9512 mg/kg bw/d	100 mg/m3	100 mg/m3	100 mg/m3	100 mg/m3 16171 mg/kg bw/d

Methanol

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	260	200	1040	800	SKIN
VLEP	BEL	266	200	333	250	SKIN
TLV	BGR	50				SKIN
MAK	CHE	260	200	1040	800	SKIN
TLV	CZE	250		1000		SKIN
AGW	DEU	270	200	1080	800	SKIN
MAK	DEU	270	200	1080	800	SKIN
TLV	DNK	260	200			
VLA	ESP	266	200			SKIN
TLV	EST	260	200			SKIN
HTP	FIN	270	200	330	250	SKIN
VLEP	FRA	260	200	1300	1000	SKIN
WEL	GBR	266	200	333	250	SKIN
TLV	GRC	260	200	325	250	
GVI	HRV	260	200			SKIN
AK	HUN	260		1040		
OEL	IRL	260	200			SKIN

VLEP	ITA	260	200			SKIN	
RD	LTU	260	200			SKIN	
RV	LVA	260	200			SKIN	
OEL	NLD	133	100			SKIN	
TLV	NOR	130	100			SKIN	
NDS	POL	100		300			
VLE	PRT	260	200			SKIN	
NPHV	SVK	260	200			SKIN	
MAK	SWE	250	200	350	250	SKIN	
OEL	EU	260	200			SKIN	
TLV-ACGIH		262	200	328	250		

Predicted no-effect concentration - PNEC		
Normal value in fresh water	20,8	mg/l
Normal value in marine water	2,08	mg/l
Normal value for fresh water sediment	77	mg/kg
Normal value for marine water sediment	7,7	mg/kg
Normal value for water, intermittent release	1540	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	100	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers				
Oral		8 mg/kg bw/d		8 mg/kg bw/d				
Inhalation	50 mg/m3	50 mg/m3	50 mg/m3	50 mg/m3	260 mg/m3	260 mg/m3	260 mg/m3	260 mg/m3
Skin		8 mg/kg bw/d		8 mg/kg bw/d		40 mg/kg bw/d		40 mg/kg bw/d

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.

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 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).

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.

Materiali per guanti per utilizzo a lungo termine(BTT>480 min): alcool etilvinilico laminato (EVAL), gomma butile.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid
Colour	as showed in color folder
Odour	characteristic of solvent
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available
Initial boiling point	Not available
Boiling range	Not available
Flash point	26 °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	1,70
Solubility	insoluble in water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	1600 - 2400 cP (Brookfield, 20°C)
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	22,63 %	-	384,65	g/litre
VOC (volatile carbon) :	18,76 %	-	318,88	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.

Barium sulfate
Stable in normal conditions of use and storage.

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700).
No data available about the reactivity on the product itself.

Xylene isomers
Stable in normal conditions of use and storage.

Talc
Stable in normal conditions of use and storage.

Toluene
Avoid exposure to: light.

2-methoxy-1-methylethyl acetate
Stable in normal conditions of use and storage.

Acetone
Reacts with: bases.

n-Butyl Acetate
No specific data available.

Cumene
Decomposes if exposed to: high temperatures,heat,naked flames,ignition sources.

2-butoxyethanol
May form peroxides with: air,light.

Butanone
No specific data available.

Ethylbenzene
Stable in normal conditions of use and storage.

1,2,4-trimethylbenzene
No specific data available.

Mesitylene
No specific data available.

Methanol
No specific data available.

10.2. Chemical stability
The product is stable in normal conditions of use and storage.

Barium sulfate
Stable in normal conditions of use and storage.

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700).
Stable in normal conditions of use and storage.

Xylene isomers
Stable in normal conditions of use and storage.

Talc
Stable in normal conditions of use and storage.

Toluene
Stable in normal conditions of use and storage.

2-methoxy-1-methylethyl acetate
Stable in normal conditions of use and storage.

Acetone
Stable in normal conditions of use and storage.

n-Butyl Acetate
Stable in normal conditions of use and storage.

Cumene
Stable in normal conditions of use and storage.

2-butoxyethanol
Stable in normal conditions of use and storage.

Butanone
Stable in normal conditions of use and storage.

Ethylbenzene
Stable in normal conditions of use and storage.

1,2,4-trimethylbenzene
Stable in normal conditions of use and storage.

Mesitylene
Stable in normal conditions of use and storage.

Methanol
Stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions
The vapours may also form explosive mixtures with the air.

Barium sulfate
Avoid exposure to: high temperatures.

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700).
By weight over 0,5 kg to add an aminic base substance drives to a strong exothermic reaction.
The reaction with aminic components is not reversible .

Xylene isomers
Reacts violently with: strong oxidising agents,strong acids,nitric acid,perchlorates.
May form explosive mixtures with: air.

Talc
No specific data available.

Toluene
Risk of explosion on contact with: fuming sulphuric acid,nitric acid,silver perchlorate,nitrogen dioxide,non-metal halogenates,organic nitrocompounds,acetic acid.
May form explosive mixtures with: air.
May react dangerously with: strong acids,strong oxidising agents,sulphur.

2-methoxy-1-methylethyl acetate
Stable in normal conditions of use and storage.

Acetone
May form explosive mixtures with: air.

n-Butyl Acetate
May form explosive mixtures with: air.

Cumene
Forms peroxides with: air.
Forms explosive mixtures with: air.

2-butoxyethanol
Stable in normal conditions of use and storage.

Butanone
No specific data available.

Ethylbenzene

Stable in normal conditions of use and storage.

1,2,4-trimethylbenzene
No specific data available.

Mesitylene
No specific data available.

Methanol
No specific data available.

10.4. Conditions to avoid
Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

Barium sulfate
Decomposes if exposed to: high temperatures.

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700).
Avoid exposure to: high temperatures.
The thermal decomposition develops gases which can cause pressure in closed systems.

Xylene isomers
Avoid exposure to: high temperatures,naked flames,sources of heat.

Talc
No specific data available.

Toluene
No specific data available.

2-methoxy-1-methylethyl acetate
Avoid exposure to: high temperatures,electrostatic discharges.

Acetone
Avoid exposure to: hot air,heat,naked flames,ignition sources.
Avoid contact with: chlorinated hydrocarbons.

n-Butyl Acetate
Avoid exposure to: heat,naked flames,electrostatic discharges,ignition sources.

Cumene
Avoid exposure to: air,heat,ignition sources.

2-butoxyethanol
Avoid exposure to: high temperatures,ignition sources,sources of heat,air,light.

Butanone
No specific data available.

Ethylbenzene
Avoid exposure to: heat,naked flames,sources of heat.

1,2,4-trimethylbenzene
No specific data available.

Mesitylene
No specific data available.

Methanol
No specific data available.

10.5. Incompatible materials

Barium sulfate
No specific data available.

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700).
Avoid contact with: oxidising agents,acids,bases.Avoid unintended contact with amines.

Xylene isomers
No specific data available.

Talc
No specific data available.

Toluene
No specific data available.

2-methoxy-1-methylethyl acetate
Avoid contact with: oxidising agents,strong acids.

Acetone
Attacks various types of plastic materials.
Attacks various types of rubber.
Avoid contact with: alkaline metals,sodium hydroxide.Avoid contact with: strong oxidising agents,alkalis,amines.

n-Butyl Acetate
Avoid contact with: strong acids,strong oxidising agents,strong bases.

Cumene
May react dangerously if exposed to: strong acids,strong oxidising agents.

2-butoxyethanol
Avoid contact with: oxidising agents.

Butanone
No specific data available.

Ethylbenzene
Avoid contact with: strong oxidising agents,strong acids,strong alkalis.

1,2,4-trimethylbenzene
No specific data available.

Mesitylene
No specific data available.

Methanol
No specific data available.

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.

Barium sulfate
No specific data available.

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700).
The thermal decomposition develops: carbon monoxide, water, phenols, phenolic derivatives.
An uncontrolled exothermic reaction build up phenolic derivatives , carbon monoxide and water.

Xylene isomers
When heated to decomposition releases: toxic fumes.

Talc
No specific data available.

Toluene
No specific data available.

2-methoxy-1-methylethyl acetate
When heated to decomposition releases: flammable gases.

Acetone
In decomposition develops: carbon dioxide,carbon monoxide.

n-Butyl Acetate
None dangerous decomposition products at normal use and storage conditions.

Cumene
When heated to decomposition releases: carbon oxides.

2-butoxyethanol
In decomposition develops: carbon oxides.

Butanone
No specific data available.

Ethylbenzene
In decomposition develops: carbon oxides,toxic fumes.

1,2,4-trimethylbenzene
No specific data available.

Mesitylene
No specific data available.

Methanol
No specific data available.

SECTION 11. Toxicological information

11.1. Information on toxicological effects

Methanol
La dose minima letale per l'uomo per ingestione è considerata nel range da 300 a 1000 mg/kg. L'ingestione di 4-10 ml della sostanza può provocare nell'uomo adulto la cecità permanente (IPCS).

n-Butyl Acetate
Nell'uomo i vapori di sostanza causano irritazione degli occhi e del naso. In caso di esposizioni ripetute, si hanno irritazione cutanea, dermatosi (con secchezza e screpolatura della pelle) e cheratiti.

Toluene
Possiede azione tossica sul sistema nervoso centrale e periferico con encefalopatie e polineuriti; l'azione irritante si esplica su cute, congiuntive, cornea e apparato respiratorio.

Metabolism, toxicokinetics, mechanism of action and other information
Information not available
Information on likely routes of exposure
Information not available
Delayed and immediate effects as well as chronic effects from short and long-term exposure
Information not available
Interactive effects
Information not available
ACUTE TOXICITY
LC50 (Inhalation - vapours) of the mixture:> 20 mg/l
LC50 (Inhalation - mists / powders) of the mixture:> 5 mg/l
LD50 (Oral) of the mixture:Not classified (no significant component)
LD50 (Dermal) of the mixture:>2000 mg/kg

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700).
LD50 (Oral) > 2000 mg/kg female rat
LD50 (Dermal) > 2000 mg/kg male/female rat

Xylene isomers
LD50 (Oral) 3523 mg/kg male rat
LD50 (Dermal) > 4200 mg/kg male rabbit
LC50 (Inhalation) 6700 ppm/4h male rat

Ethylbenzene
LD50 (Oral) 5460 mg/kg male rat
LD50 (Dermal) 15400 mg/kg male rabbit
LC50 (Inhalation) 17,8 mg/l/4h male rat

Butanone
LD50 (Oral) 2193 mg/kg male/female rat

Barium sulfate
LD50 (Oral) > 3000 mg/kg Mouse

Methanol
LD50 (Oral) > 5000 mg/kg female pig
LD50 (Dermal) 17100 mg/kg rabbit
LC50 (Inhalation) 128,2 mg/l/4h male/female rat

2-methoxy-1-methylethyl acetate
LD50 (Oral) 8532 mg/kg female rat
LD50 (Dermal) > 2000 mg/kg male rat

n-Butyl Acetate
LD50 (Oral) > 6400 mg/kg male/female rat
LD50 (Dermal) > 5000 mg/kg male/female rabbit
LC50 (Inhalation) 21,1 mg/l/4h rat

Toluene
LD50 (Oral) 5580 mg/kg male rat
LD50 (Dermal) > 5000 mg/kg male rabbit
LC50 (Inhalation) 28,1 mg/l/4h male/female rat

Talc
LD50 (Oral) > 5000 mg/kg male rat
LD50 (Dermal) > 2000 mg/kg male/female rat
LC50 (Inhalation) > 2,1 mg/l/4h male/female rat

Acetone
LD50 (Oral) 5800 mg/kg female rat
LD50 (Dermal) > 7420 mg/kg male/female rabbit

2-butoxyethanol
LD50 (Oral) 1414 mg/kg male/female rat
LD50 (Dermal) > 2000 mg/kg male/female rat
LC50 (Inhalation) 2,2 mg/l/4h male/female rat

1,2,4-trimethylbenzene
LD50 (Oral) 6000 mg/kg male rat
LD50 (Dermal) 3440 mg/kg male/female rat

Mesitylene
LD50 (Oral) 6000 mg/kg male rat
LD50 (Dermal) > 2000 mg/kg male/female rat

Cumene
LD50 (Oral) 1400 mg/kg male rat
LD50 (Dermal) > 3160 mg/kg male/female rabbit

SKIN CORROSION / IRRITATION
Causes skin irritation
SERIOUS EYE DAMAGE / IRRITATION
Causes serious eye irritation
RESPIRATORY OR SKIN SENSITISATION
Sensitising for the skin
GERM CELL MUTAGENICITY
Does not meet the classification criteria for this hazard class
CARCINOGENICITY
Does not meet the classification criteria for this hazard class
REPRODUCTIVE TOXICITY
Does not meet the classification criteria for this hazard class
STOT - SINGLE EXPOSURE
Does not meet the classification criteria for this hazard class
STOT - REPEATED EXPOSURE
Does not meet the classification criteria for this hazard class
ASPIRATION HAZARD
Does not meet the classification criteria for this hazard class

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

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700).

LC50 - for Fish	3,6 mg/l/96h Salmo gairdneri
EC50 - for Crustacea	1,7 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	9,4 mg/l/72h Scenedesmus capricornutum
Chronic NOEC for Crustacea	0,3 mg/l Daphnia magna

Xylene isomers

LC50 - for Fish	2,6 mg/l/96h Salmo gairdneri
EC50 - for Crustacea	3,82 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	4,36 mg/l/72h Pseudokirchnerella subcapitata
EC10 for Algae / Aquatic Plants	1,9 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	> 1,3 mg/l Salmo gairdneri
Chronic NOEC for Crustacea	1,17 mg/l Ceriodaphnia dubia
Chronic NOEC for Algae / Aquatic Plants	0,44 mg/l Pseudokirchnerella subcapitata

Ethylbenzene

LC50 - for Fish	5,1 mg/l/96h Menidia menidia
EC50 - for Crustacea	1,8 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	5,4 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Crustacea	0,96 mg/l Ceriodaphnia dubia

Butanone

LC50 - for Fish	2993 mg/l/96h Pimephales promelas
EC50 - for Crustacea	308 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	1972 mg/l/72h Pseudokirchnerella subcapitata

Methanol

LC50 - for Fish	15400 mg/l/96h Lepomis macrochirus

EC50 - for Crustacea	22200 mg/l/48h Daphnia obtusa

2-methoxy-1-methylethyl acetate

LC50 - for Fish	100 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	> 500 mg/l/48h Daphnia magna
Chronic NOEC for Fish	47,5 mg/l Oryzias latipes
Chronic NOEC for Crustacea	> 100 mg/l

n-Butyl Acetate

LC50 - for Fish	18 mg/l/96h Pimephales promelas
EC50 - for Crustacea	44 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	397 mg/l/72h Pseudokirchneriella subcapitata

Toluene

LC50 - for Fish	5,5 mg/l/96h Oncorhynchus kisutch
Chronic NOEC for Fish	1,39 mg/l Oncorhynchus kisutch

Talc

LC50 - for Fish	89581,016 mg/l/96h Fishes species
EC50 - for Crustacea	36812,359 mg/l/48h Daphnid species

Acetone

LC50 - for Fish	8120 mg/l/96h Pimephales promelas
EC50 - for Crustacea	8800 mg/l/48h Daphnia pulex
Chronic NOEC for Crustacea	2212 mg/l Daphnia magna

2-butoxyethanol

LC50 - for Fish	1474 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	1550 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	911 mg/l/72h Pseudokirchneriella subcapitata
Chronic NOEC for Fish	> 100 mg/l Danio rerio

1,2,4-trimethylbenzene

LC50 - for Fish	7,72 mg/l/96h Pimephales promelas
EC50 - for Crustacea	3,6 mg/l/48h Daphnia magna

Mesitylene

LC50 - for Fish	12,52 mg/l/96h Carassius auratus
EC50 - for Crustacea	25 mg/l/48h Daphnia magna

Cumene

LC50 - for Fish	4,7 mg/l/96h Cyprinodon variegatus
EC50 - for Crustacea	2,14 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,01 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	0,38 mg/l
Chronic NOEC for Crustacea	0,35 mg/l Daphnia magna

12.2. Persistence and degradability

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700).

Solubility in water slightly soluble > 5,4 - < 8,4 mg/l

NOT rapidly degradable 5 % 28 d

Xylene isomers

Solubility in water moderately soluble 146 mg/l

Rapidly degradable 87,8 % 28 d

Ethylbenzene

Solubility in water moderately soluble 200 mg/l

Rapidly degradable 70-80 % 28 d

Butanone

Rapidly degradable 98 % 28 d

Barium sulfate

Solubility in water 0,1 - 100 mg/l

Degradability: information not available

Methanol

Solubility in water miscible 1000 - 10000 mg/l

Rapidly degradable 82,7 % 5 d

2-methoxy-1-methylethyl acetate

Solubility in water very soluble 198000 mg/l

Rapidly degradable 83 % 28 d

n-Butyl Acetate

Solubility in water soluble 5300 mg/l

Rapidly degradable 83 % 28 d

Toluene

Solubility in water moderately soluble 579 mg/l

Rapidly degradable 81 % 5 d

Talc

Solubility in water insoluble < 0,1 mg/l

Acetone

Rapidly degradable 90,9 % 28 d

2-butoxyethanol

Solubility in water miscibile 1000 - 10000 mg/l

Rapidly degradable 90,4 % 28 d

1,2,4-trimethylbenzene

Solubility in water slightly soluble 57 mg/l

Rapidly degradable 50 % 4 d

Mesitylene

Solubility in water	slightly soluble 48,2 mg/l

NOT rapidly degradable

Cumene

Solubility in water	0,1 - 100 mg/l
Rapidly degradable	60 % 10 d

12.3. Bioaccumulative potential

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700).

BCF	31

Xylene isomers

BCF	25,9

Ethylbenzene

BCF	1 Oncorhynchus kisutch

Methanol

Partition coefficient: n-octanol/water	-0,77
BCF	0,2

n-Butyl Acetate

Partition coefficient: n-octanol/water	2,3
BCF	15,3

Toluene

Partition coefficient: n-octanol/water	2,73
BCF	90

Talc

BCF	3162

Acetone

Partition coefficient: n-octanol/water	-0,23
BCF	3

2-butoxyethanol

Partition coefficient: n-octanol/water	0,81

1,2,4-trimethylbenzene

Partition coefficient: n-octanol/water	3,65
BCF	243

Mesitylene

Partition coefficient: n-octanol/water	3,42
Cumene	
Partition coefficient: n-octanol/water	3,55
BCF	94,69

12.4. Mobility in soil

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700).	
Partition coefficient: soil/water	2,65
Xylene isomers	
Partition coefficient: soil/water	2,73
n-Butyl Acetate	
Partition coefficient: soil/water	< 3
1,2,4-trimethylbenzene	
Partition coefficient: soil/water	3,04
Mesitylene	
Partition coefficient: soil/water	2,87
Cumene	
Partition coefficient: soil/water	2,946

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

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.

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: **1263**

14.2. UN proper shipping name

ADR / RID:	PAINT Barium sulfate (58,8% - metallic element) reaction product: bisphenol-A-(epichlorhydrin); epoxy resin Xylene isomers
IMDG:	PAINT Barium sulfate (58,8% - metallic element) reaction product: bisphenol-A-(epichlorhydrin); epoxy resin Xylene isomers
IATA:	PAINT Barium sulfate (58,8% - metallic element) reaction product: bisphenol-A-(epichlorhydrin); epoxy resin Xylene isomers

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3
IMDG:	Class: 3	Label: 3
IATA:	Class: 3	Label: 3

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 30	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
	Special Provision: -		
IMDG:	EMS: F-E, S-E	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 220 L	Packaging instructions: 366
	Pass.:	Maximum quantity: 60 L	Packaging instructions: 355
	Special Instructions:	A3, A72, A192	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
Information not relevant

Packaging:
6 KG PACKAGE
PART "A" = 5 KG – 1A2/Y1,4/100/17/D/BAM11893-ICM– Ø 198x214cmH – Weight 0,572 KG

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	

Contained substance

Point	48	Toluene Reg. no.: 01-2119471310-51

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 authorisarion (Annex XIV REACH)
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.

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. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
STOT SE 1	Specific target organ toxicity - single exposure, category 1
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
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 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H361d	Suspected of damaging the unborn child.

H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs.
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.
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.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH205	Contains epoxy constituents. May produce an allergic reaction.

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
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
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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
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- 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.