

Safety data sheet

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

1.1. Product identifier

Code: **0P0645**
Product name: **RESICOLOR 425 Comp. B**

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

Intended use: **Hardener for epoxy primer**

Identified Uses	Industrial	Professional	Consumer
Hardener for epoxy resin	✓	✓	-

1.3. Details of the supplier of the safety data sheet

Name: **Resimix s.r.l.**
Full address: **via Pacinotti 12/14**
District and Country: **36040 Brendola (VI) Italia**
Tel.: **+39 (0) 444 400 773**
Fax: **+39 (0) 444 601 662**

e-mail address of the competent person responsible for the Safety Data Sheet: **laboratorio@resimix.com**

Product distribution by: **Resimix s.r.l.**

1.4. Emergency telephone number

For urgent inquiries refer to:

- CAVp Osp. Pediatrico Bambino Gesù, Roma 06 68593726**
- Az. Osp. Univ. Foggia, Foggia 0881-732326**
- Az. Osp. "A. Cardarelli", Napoli 081-7472870**
- CAV Policlinico "Umberto I", Roma 06-49978000**
- CAV Policlinico "A. Gemelli", Roma 06-3054343**
- Az. Osp. "Careggi" U.O. Tossicologia Medica, Firenze 055-7947819**
- CAV Centro Nazionale di Informazione Tossicologica, Pavia 0382-24444**
- Osp. Niguarda Ca" Granda, Milano 02-66101029**
- Azienda Ospedaliera Papa Giovanni XXII, Bergamo 80088330**

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.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H335	May cause respiratory irritation.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.
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:



0P0645 - RESICOLOR 425 Comp. B

SECTION 2. Hazards identification ... / >>

Signal words: Danger

Hazard statements:

H226 Flammable liquid and vapour.
H318 Causes serious eye damage.
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.

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].
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor
P370+P378 In case of fire: use appropriate means to extinguish.
P501 Dispose of contents / container in accordance with local / regional / national / international.

Contains:

Butan-1-ol
 Amides, from C18-unsatd. fatty acid dimers, tall-oil fatty acids and triethylenetetramine, reaction products with bisphenol A-epichlorohydrin polymer.
 Ethyl acetate
 Hydrocarbons, C9, aromatics

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)

Amides, from C18-unsatd. fatty acid dimers, tall-oil fatty acids and triethylenetetramine, reaction products with bisphenol A-epichlorohydrin polymer.

CAS 68953-09-3 30 ≤ x < 50 Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317

EC

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Butan-1-ol

CAS 71-36-3 10 ≤ x < 30 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

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

SECTION 3. Composition/information on ingredients ... / >>**Ethyl acetate**

CAS 141-78-6 5 ≤ x < 10 Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC 205-500-4
INDEX 607-022-00-5
Reg. no. 01-2119475103-46

Hydrocarbons, C9, aromatics

CAS 64742-95-6 5 ≤ x < 10 Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT SE 3 H335, STOT SE 3 H336,
Aquatic Chronic 2 H411, EUH066, Note P
EC 265-199-0
INDEX
Reg. no. 01-2119455851-35

n-Butyl Acetate

CAS 123-86-4 1 ≤ x < 5 Flam. Liq. 3 H226, STOT SE 3 H336, EUH066
EC 204-658-1
INDEX 607-025-00-1
Reg. no. 01-2119485493-29

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. 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
CHE	Suisse / Schweiz	Valeurs limites d'exposition aux postes de travail 2014. / Grenzwerte am Arbeitsplatz
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
FRA	France	JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NLD	Nederland	Databank of the social and Economic Council of Netherlands (SER) Values, AF 2011:18
SWE	Sverige	Occupational Exposure Limit Values, AF 2011:18
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

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

Butan-1-ol

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
MAK	AUS	150	50	600	200
VLEP	BEL	62	20		
MAK	CHE	150	50	150	50
AGW	DEU	310	100	310	100
VLA	ESP	61	20	154	50
VLEP	FRA			150	50
WEL	GBR			154	50

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,082	mg/l
Normal value in marine water	0,008	mg/l
Normal value for fresh water sediment	0,324	mg/kg
Normal value for marine water sediment	0,032	mg/kg
Normal value of STP microorganisms	2476	mg/l
Normal value for the terrestrial compartment	0,017	mg/kg

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						1,562 mg/kg bw/d		
Inhalation			155 mg/m3		55,357 mg/m3		310 mg/m3	
Skin					3,125 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				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
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

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

Ethyl acetate

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
MAK	AUS	1050	300	2100	600
VLEP	BEL	1461	400		
MAK	CHE	1400	400	2800	800
AGW	DEU	1500	400	3000	800
VLA	ESP	1460	400		
VLEP	FRA	1400	400		
WEL	GBR	730	200	1460	400
MAK	SWE	500	150	1100	300
OEL	EU	734	200	1468	400

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,24	mg/l
Normal value in marine water	0,024	mg/l
Normal value for fresh water sediment	1,15	mg/kg
Normal value for marine water sediment	0,115	mg/kg
Normal value of STP microorganisms	650	mg/l
Normal value for the food chain (secondary poisoning)	0,2	mg/kg
Normal value for the terrestrial compartment	0,148	mg/kg

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				4,5 mg/kg bw/d				
Inhalation	734 mg/m3	734 mg/m3	367 mg/m3	367 mg/m3	1468 mg/m3	1468 mg/m3	734 mg/m3	734 mg/m3
Skin				37 mg/kg bw/d				63 mg/kg bw/d

Hydrocarbons, C9, aromatics

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				11 mg/kg/d				
Inhalation				32 mg/m3				150 mg/m3
Skin				11 mg/kg/d				25 mg/kg/d

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

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			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
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

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 a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required. Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

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

ENVIRONMENTAL EXPOSURE CONTROLS

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

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid
Colour	orange
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	25 °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	0,91
Solubility	insoluble in water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	190 - 250 cP (Brookfield, 23°C)
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	57,94 %	-	527,23	g/litre
VOC (volatile carbon) :	42,77 %	-	389,25	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.

Amides, from C18-unsatd. fatty acid dimers, tall-oil fatty acids and triethylenetetramine, reaction products with bisphenol A-epichlorohydrin polymer.

No specific data available.

Butan-1-ol

Avoid exposure to: air.

Xylene isomers

Stable in normal conditions of use and storage.

Ethyl acetate

Stable in normal conditions of use and storage.

It slowly decomposes to acetic acid and ethanol for the action of light, air and water.

Hydrocarbons, C9, aromatics

No specific data available.

n-Butyl Acetate

No specific data available.

10.2. Chemical stability

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

Amides, from C18-unsatd. fatty acid dimers, tall-oil fatty acids and triethylenetetramine, reaction products with bisphenol A-epichlorohydrin

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

polymer.

Stable in normal conditions of use and storage.

Butan-1-ol

Stable in normal conditions of use and storage.

Xylene isomers

Stable in normal conditions of use and storage.

Ethyl acetate

Stable in normal conditions of use and storage.

Hydrocarbons, C9, aromatics

Stable in normal conditions of use and storage.

n-Butyl Acetate

Stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

Amides, from C18-unsatd. fatty acid dimers, tall-oil fatty acids and triethylenetetramine, reaction products with bisphenol A-epichlorohydrin polymer.

No specific data available.

Butan-1-ol

May react violently with: strong oxidising agents.

Xylene isomers

Reacts violently with: strong oxidising agents, strong acids, nitric acid, perchlorates.

May form explosive mixtures with: air.

Ethyl acetate

Risk of explosion on contact with: alkaline metals, hydrides, oleum. May react violently with: fluorine, chlorosulphuric acid, potassium tert-butoxide, strong oxidising agents. Forms explosive mixtures with: air.

Hydrocarbons, C9, aromatics

No specific data available.

n-Butyl Acetate

May form explosive mixtures with: air.

10.4. Conditions to avoid

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

Amides, from C18-unsatd. fatty acid dimers, tall-oil fatty acids and triethylenetetramine, reaction products with bisphenol A-epichlorohydrin polymer.

No specific data available.

Butan-1-ol

No specific data available.

Xylene isomers

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

Ethyl acetate

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

Hydrocarbons, C9, aromatics

No specific data available.

n-Butyl Acetate

Avoid exposure to: heat, naked flames, electrostatic discharges, ignition sources.

10.5. Incompatible materials

Amides, from C18-unsatd. fatty acid dimers, tall-oil fatty acids and triethylenetetramine, reaction products with bisphenol A-epichlorohydrin polymer.

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

No specific data available.

Butan-1-ol

Avoid contact with: strong oxidising agents.

Xylene isomers

No specific data available.

Ethyl acetate

Incompatible with: acids,bases,strong oxidising agents,aluminium,nitrates,chlorosulphuric acid.Incompatible materials: plastic materials.

Hydrocarbons, C9, aromatics

No specific data available.

n-Butyl Acetate

Avoid contact with: strong acids,strong oxidising agents,strong bases.

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.

Amides, from C18-unsatd. fatty acid dimers, tall-oil fatty acids and triethylenetetramine, reaction products with bisphenol A-epichlorohydrin polymer.

No specific data available.

Butan-1-ol

None dangerous decomposition products at normal use and storage conditions.

Xylene isomers

When heated to decomposition releases: toxic fumes.

Ethyl acetate

When heated to decomposition releases: carbon oxides.

Hydrocarbons, C9, aromatics

No specific data available.

n-Butyl Acetate

None dangerous decomposition products at normal use and storage conditions.

SECTION 11. Toxicological information**11.1. Information on toxicological effects**

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.

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) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

SECTION 11. Toxicological information ... / >>

Xylene isomers	
LD50 (Oral)	3523 mg/kg male rat
LD50 (Dermal)	> 4200 mg/kg male rabbit
LC50 (Inhalation)	6700 ppm/4h male rat
Butan-1-ol	
LD50 (Oral)	2292 mg/kg female rat
LD50 (Dermal)	3430 mg/kg male rabbit
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
Ethyl acetate	
LD50 (Oral)	5620 mg/kg rat
LD50 (Dermal)	> 20000 mg/kg male rabbit
Amides, from C18-unsatd. fatty acid dimers, tall-oil fatty acids and triethylenetetramine, reaction products with bisphenol A-epichlorohydrin polymer.	
LD50 (Oral)	> 2000 mg/kg
Hydrocarbons, C9, aromatics	
LD50 (Oral)	> 5000 mg/kg male/female rat
LD50 (Dermal)	> 2000 mg/kg male/female rabbit

SKIN CORROSION / IRRITATION

Causes skin irritation

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

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSUREMay cause respiratory irritation
May cause drowsiness or dizziness**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

SECTION 12. Ecological information ... / >>

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

Butan-1-ol	
LC50 - for Fish	1376 mg/l/96h Pimephales promelas
EC50 - for Crustacea	1328 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 500 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea	4,1 mg/l Daphnia magna

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

Ethyl acetate	
LC50 - for Fish	230 mg/l/96h Pimephales promelas
Chronic NOEC for Algae / Aquatic Plants	> 100 mg/l Desmodesmus subspicatus

Amides, from C18-unsatd. fatty acid dimers, tall-oil fatty acids and triethylenetetramine, reaction products with bisphenol A-epichlorohydrin polymer.

LC50 - for Fish	> 1 mg/l/96h
EC50 - for Crustacea	> 0,1 mg/l/48h

Hydrocarbons, C9, aromatics	
EC50 - for Crustacea	3,2 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,6 mg/l/72h Pseudokirchneriella subcapitata

12.2. Persistence and degradability

Xylene isomers	
Solubility in water	146 mg/l
Rapidly degradable	87,8 % 28 d

Butan-1-ol	
Solubility in water	very soluble 66000 mg/l
Rapidly degradable	92 % 20 d

n-Butyl Acetate	
Solubility in water	soluble 5300 mg/l
Rapidly degradable	83 % 28 d

Ethyl acetate	
Solubility in water	very soluble 80000 mg/l
Rapidly degradable	69 % 20 d

Hydrocarbons, C9, aromatics	
Rapidly degradable	78 % 28 d

12.3. Bioaccumulative potential

Xylene isomers	
BCF	25,9

Butan-1-ol	
BCF	3,16

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

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SECTION 12. Ecological information ... / >>

Ethyl acetate
Partition coefficient: n-octanol/water 0,68
BCF 30

12.4. Mobility in soil

Xylene isomers
Partition coefficient: soil/water 2,73

Butan-1-ol
Partition coefficient: soil/water 0,54

n-Butyl Acetate
Partition coefficient: soil/water < 3

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: 1263

14.2. UN proper shipping name

ADR / RID: PAINT or PAINT RELATED MATERIAL (n-butanol, xylene)
IMDG: PAINT or PAINT RELATED MATERIAL (n-butanol, xylene)
IATA: PAINT or PAINT RELATED MATERIAL (n-butanol, xylene)

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

SECTION 14. Transport information ... / >>**14.5. Environmental hazards**

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user

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

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
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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)

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
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
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

SECTION 16. Other information ... / >>

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.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
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.
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.

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

1. Regulation (EU) 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
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
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

SECTION 16. Other information ... / >>

- 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.

Changes to previous review: all sections revised according to Regulation 830/2015/EC.