# Safety Data Sheet

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

**1.1. Product identifier**

Code: **IDEALCOLOR25 Part "A" (1 KG)**

Product name

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

Intended use **Hardener for 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. |
| 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:

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
Ethyl acetate

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

**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 Concil 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 |

**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 | | | |
|---|---|---|---|---|---|---|---|---|
| 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 | | | |
|---|---|---|---|---|---|---|---|---|
| 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 |

**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 | | | |
|---|---|---|---|---|---|---|---|---|
| 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 | |
|---|---|---|---|
| Oral | 11 mg/kg/d | | |
| Inhalation | 32 mg/m3 | | 150 mg/m3 |
| Skin | 11 mg/kg/d | | 25 mg/kg/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**

| | Effects on consumers | | | Effects on workers | | | |
|---|---|---|---|---|---|---|---|
| Route of exposure | | | | | | | |
| 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.

Si decompone lentamente ad acido acetico ed etanolo per l'azione di luce, aria e acqua.

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 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.
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

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 EXPOSURE
May cause respiratory irritationMay 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**

| | |
|---|---|
| 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 | moderately soluble 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 |
| 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

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 (n-butanol, xylene) |
| IMDG: | PAINT (n-butanol, xylene) |
| IATA: | PAINT (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

**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 “B” = 1 KG – Approval 1A1/Y/1,5/200/17/I/CPAB0 – 9,9x14,9cmH – Weight 0,116 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

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 |
| **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 |
| **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
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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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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.