# Safety Data Sheet
# ZINCATURA A FREDDO

**Safety Data Sheet dated 22/5/2017, version 10**

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

1.1. Product identifier

Mixture identification:

Trade name: ZINCATURA A FREDDO

Trade code: 101

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

Recommended use:

Coating material

1.3. Details of the supplier of the safety data sheet

Company:

COLORIFICIO SAN MARCO S.P.A.

Via Alta 10

30020 MARCON (VE) - Italy -

Tel.+39 041 4569322

Fax. +39 041 5950153

Competent person responsible for the safety data sheet:

sicurezza.prodotti@sanmarcogroup.it

1.4. Emergency telephone number

Technical information: COLORIFICIO SAN MARCO SPA +39 041 4569322 (Monday – Friday 9.00-12.30 ; 13.30-17.00)

## SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

- Warning, Flam. Liq. 3, Flammable liquid and vapour.
- Warning, Eye Irrit. 2, Causes serious eye irritation.
- Warning, Skin Irrit. 2, Causes skin irritation.
- Warning, Aquatic Chronic 1, Very toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:

Warning

Hazard statements:

H226 Flammable liquid and vapour.

H319 Causes serious eye irritation.

H315 Causes skin irritation.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P405 Store locked up.
P501 Dispose of contents / container in accordance with national regulations.

Special Provisions:
EUH208 Contains 2-butanoneoxime. May produce an allergic reaction.

Special provisions according to Annex XVII of REACH and subsequent amendments:
None

2.3. Other hazards
vPvB Substances: None - PBT Substances: None

Other Hazards:
No other hazards

## SECTION 3: Composition/information on ingredients

3.1. Substances
N.A.

3.2. Mixtures
Hazardous components within the meaning of the CLP regulation and related classification:

| Qty | Name | Ident. Number | Classification |
|---|---|---|---|
| >= 40% - < 50% | zinc powder - zinc dust (stabilized) | Index number: 030-002-00-7<br>CAS: 7440-66-6<br>EC: 231-175-3<br>REACH No.: 01-2119467174-37-XXXX | 4.1/A1 Aquatic Acute 1 H400<br>4.1/C1 Aquatic Chronic 1 H410 |
| >= 10% - < 12.5% | xylene (mixture of isomers) | Index number: 601-022-00-9<br>CAS: 1330-20-7<br>EC: 215-535-7<br>REACH No.: 01-2119488216-32-XXXX | 2.6/3 Flam. Liq. 3 H226<br>3.10/1 Asp. Tox. 1 H304<br>3.2/2 Skin Irrit. 2 H315<br>3.9/2 STOT RE 2 H373<br>3.1/4/Dermal Acute Tox. 4 H312<br>3.3/2 Eye Irrit. 2 H319<br>3.1/4/Inhal Acute Tox. 4 H332<br>3.8/3 STOT SE 3 H335 |
| >= 3% - < 5% | Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified; [A complex combination of hydrocarbons obtained from distillation of aromatic streams. It consists predominantly of aromatic hydrocarbons having carbon numbers predominantly in the range of C8 through C10 and boiling in the | Index number: 649-356-00-4 | 3.8/3 STOT SE 3 H336 |

| | | | | |
|---|---|---|---|---|
| | range of approximately 135 oC to 210 oC (275oF to 410oF).] | CAS:<br>EC: | 64742-95-6<br>265-199-0 | 3.8/3 STOT SE 3 H335<br>3.10/1 Asp. Tox. 1 H304<br>4.1/C2 Aquatic Chronic 2 H411<br>2.6/3 Flam. Liq. 3 H226 |
| >= 1% - < 3% | 2-methylpropan-1-ol; iso-butanol | Index number:<br>CAS:<br>EC:<br>REACH No.: | 603-108-00-1<br>78-83-1<br>201-148-0<br>01-2119484609-23-XXXX | 2.6/3 Flam. Liq. 3 H226<br>3.8/3 STOT SE 3 H335<br>3.2/2 Skin Irrit. 2 H315<br>3.3/1 Eye Dam. 1 H318<br>3.8/3 STOT SE 3 H336 |
| >= 1% - < 3% | 2-butoxyethanol; ethylene glycol monobutyl ether | Index number:<br>CAS:<br>EC:<br>REACH No.: | 603-014-00-0<br>111-76-2<br>203-905-0<br>01-2119475108-36-XXXX | 3.3/2 Eye Irrit. 2 H319<br>3.2/2 Skin Irrit. 2 H315<br>3.1/4/Oral Acute Tox. 4 H302<br>3.1/4/Dermal Acute Tox. 4 H312<br>3.1/4/Inhal Acute Tox. 4 H332 |
| >= 1% - < 3% | 1,2,4-trimethylbenzene | Index number:<br>CAS:<br>EC: | 601-043-00-3<br>95-63-6<br>202-436-9 | 2.6/3 Flam. Liq. 3 H226<br>3.3/2 Eye Irrit. 2 H319<br>3.8/3 STOT SE 3 H335<br>3.2/2 Skin Irrit. 2 H315<br>4.1/C2 Aquatic Chronic 2 H411<br>3.1/4/Inhal Acute Tox. 4 H332 |
| >= 0.25% - < 0.5% | butanone oxime | Index number:<br>CAS:<br>EC:<br>REACH No.: | 616-014-00-0<br>96-29-7<br>202-496-6<br>01-2119539477-28-XXXX | 3.6/2 Carc. 2 H351<br>3.3/1 Eye Dam. 1 H318<br>3.4.2/1-1A-1B Skin Sens. 1,1A, 1B H317<br>3.1/4/Dermal Acute Tox. 4 H312 |

## SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.
Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.
Wash thoroughly the body (shower or bath).
Remove contaminated clothing immediatley and dispose off safely.
After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.
Protect uninjured eye.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

4.2. Most important symptoms and effects, both acute and delayed

None

4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Treatment:
None

## SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
CO2 or Dry chemical fire extinguisher.
Extinguishing media which must not be used for safety reasons:
None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.
Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Move undamaged containers from immediate hazard area if it can be done safely.

## SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.
Remove all sources of ignition.
Remove persons to safety.
See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Retain contaminated washing water and dispose it.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

## SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contamined clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.
Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.
Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:

Cool and adequately ventilated.

7.3. Specific end use(s)

None in particular

## SECTION 8: Exposure controls/personal protection

8.1. Control parameters

xylene (mixture of isomers) - CAS: 1330-20-7

- OEL Type: EU - TWA(8h): 221 mg/m3, 50 ppm - STEL: 442 mg/m3, 100 ppm - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)
- OEL Type: ACGIH - TWA(8h): 100 ppm - STEL: 150 ppm - Notes: A4, BEI - URT and eye irr, CNS impair

2-methylpropan-1-ol; iso-butanol - CAS: 78-83-1

- OEL Type: ACGIH - TWA(8h): 152 mg/m3, 50 ppm - Notes: Skin and eye irr

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2

- OEL Type: EU - TWA(8h): 98 mg/m3, 20 ppm - STEL: 246 mg/m3, 50 ppm - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)
- OEL Type: ACGIH - TWA(8h): 98 mg/m3, 20 ppm - Notes: A3, BEI - Eye and URT irr

1,2,4-trimethylbenzene - CAS: 95-63-6

- OEL Type: EU - TWA(8h): 100 mg/m3, 20 ppm - Notes: Bold-type: Indicative occupational exposure limit values [2,3] and limit values for occupational exposure [4] (for reference see bibliography) (for references see bibliography)

DNEL Exposure Limit Values

zinc powder - zinc dust (stabilized) - CAS: 7440-66-6

Worker Professional: 5 mg/m3 - Consumer: 2.5 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Professional: 83 mg/kg - Consumer: 83 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Consumer: 0.83 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

2-methylpropan-1-ol; iso-butanol - CAS: 78-83-1

Consumer: 25 mg/kg - Exposure: Human Oral - Frequency: Long Term, local effects
Consumer: 25 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
Worker Professional: 310 mg/m3 - Consumer: 55 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, local effects
Worker Professional: 310 mg/m3 - Consumer: 55 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2

Worker Professional: 89 mg/kg - Consumer: 89 mg/kg - Exposure: Human Dermal - Frequency: Short Term, systemic effects
Worker Professional: 1091 mg/m3 - Consumer: 426 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, systemic effects
Worker Professional: 125 mg/kg - Consumer: 75 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Worker Professional: 98 mg/m3 - Consumer: 59 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Consumer: 26.7 mg/kg - Exposure: Human Oral - Frequency: Short Term, systemic effects
Worker Professional: 246 mg/m3 - Consumer: 147 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, local effects
Consumer: 6.3 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

zinc powder - zinc dust (stabilized) - CAS: 7440-66-6

Target: Fresh Water - Value: 0.0206 mg/l
Target: Freshwater sediments - Value: 117.8 mg/kg
Target: Marine water - Value: 0.0061 mg/l

Target: Marine water sediments - Value: 56.5 mg/kg
Target: Soil (agricultural) - Value: 35.6 mg/kg
Target: Microorganisms in sewage treatments - Value: 0.052 mg/l
2-methylpropan-1-ol; iso-butanol - CAS: 78-83-1
Target: Fresh Water - Value: 0.4 mg/l
Target: Marine water - Value: 0.04 mg/l
Target: Freshwater sediments - Value: 1.51 mg/kg
Target: Marine water sediments - Value: 0.152 mg/kg
Target: Microorganisms in sewage treatments - Value: 10 mg/l
Target: Soil (agricultural) - Value: 0.0699 mg/kg
2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2
Target: Fresh Water - Value: 8.8 mg/l
Target: Marine water - Value: 0.88 mg/l
Target: Freshwater sediments - Value: 34.6 mg/kg
Target: Marine water sediments - Value: 3.46 mg/kg
Target: Microorganisms in sewage treatments - Value: 463 mg/l
Target: Food chain - Value: 20 mg/kg
Target: Soil (agricultural) - Value: 2.33 mg/kg

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

## SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Appearance: | liquid |
| Colour: | grey |
| Odour: | characteristic of solvent |
| Odour threshold: | N.A. |
| pH: | N.A. |
| Melting point / freezing point: | N.A. |
| Initial boiling point and boiling range: | N.A. |
| Solid/gas flammability: | N.A. |
| Upper/lower flammability or explosive limits: | N.A. |
| Vapour density: | N.A. |
| Flash point: | >23 °C ° C |
| Evaporation rate: | N.A. |
| Vapour pressure: | N.A. |
| Relative density: | 2.15 kg/l |
| Solubility in oil: | N.A. |
| Partition coefficient (n-octanol/water): | N.A. |
| Auto-ignition temperature: | N.A. |
| Decomposition temperature: | N.A. |
| Viscosity: | >20.5 mm2/s |
| Explosive properties: | N.A. |

Oxidizing properties: N.A.

9.2. Other information

Miscibility: N.A.
Fat Solubility: N.A.
Conductivity: N.A.
Substance Groups relevant properties N.A.

## SECTION 10: Stability and reactivity

10.1. Reactivity
Stable under normal conditions
10.2. Chemical stability
Stable under normal conditions
10.3. Possibility of hazardous reactions
None
10.4. Conditions to avoid
Stable under normal conditions.
10.5. Incompatible materials
Avoid contact with combustible materials. The product could catch fire.
10.6. Hazardous decomposition products
None.

## SECTION 11: Toxicological information

11.1. Information on toxicological effects
Toxicological information of the product:
ZINCATURA A FREDDO
a) acute toxicity
Not classified
No data available for the product
b) skin corrosion/irritation
The product is classified: Skin Irrit. 2 H315
c) serious eye damage/irritation
The product is classified: Eye Irrit. 2 H319
d) respiratory or skin sensitisation
Not classified
No data available for the product
e) germ cell mutagenicity
Not classified
No data available for the product
f) carcinogenicity
Not classified
No data available for the product
g) reproductive toxicity
Not classified
No data available for the product
h) STOT-single exposure
Not classified
No data available for the product
i) STOT-repeated exposure
Not classified
No data available for the product
j) aspiration hazard
Not classified
No data available for the product
Toxicological information of the main substances found in the product:
zinc powder - zinc dust (stabilized) - CAS: 7440-66-6
a) acute toxicity:
Test: LC50 - Route: Inhalation - Species: Rat 5.41 mg/l - Duration: 4h

Test: LD50 - Route: Oral - Species: Rat > 2000 mg/kg
2-methylpropan-1-ol; iso-butanol - CAS: 78-83-1
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat 3350 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit 2460 mg/kg
Test: LC50 - Route: Inhalation - Species: Rat > 18.18 mg/l - Duration: 6h
2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat 615 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit 405 mg/kg
Test: LC50 - Route: Inhalation - Species: Rat 2.2 mg/l - Duration: 4h
xylene (mixture of isomers) - CAS: 1330-20-7
LD50 (RAT) ORAL: 5000 mg/kg
2-methylpropan-1-ol; iso-butanol - CAS: 78-83-1
LD50 (RAT) ORAL: 2460 MG/KG

1,2,4-trimethylbenzene - CAS: 95-63-6
LD50 (RAT) ORAL: 7000 MG/KG BW

## SECTION 12: Ecological information

12.1. Toxicity
Adopt good working practices, so that the product is not released into the environment.

ZINCATURA A FREDDO
The product is classified: Aquatic Chronic 1 - H410
2-methylpropan-1-ol; iso-butanol - CAS: 78-83-1
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish 1430 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia 1100 mg/l - Duration h: 48
Endpoint: EC50 - Species: Algae 1799 mg/l - Duration h: 72
2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish 1474 mg/l - Duration h: 96
Endpoint: EC50 - Species: Algae 1550 mg/l - Duration h: 48
Endpoint: EC50 - Species: Daphnia 1840 mg/l - Duration h: 72
12.2. Persistence and degradability
2-methylpropan-1-ol; iso-butanol - CAS: 78-83-1
Biodegradability: Readily biodegradable - Test: N.A. - Duration h: N.A. - %: N.A. - Notes: N.A.
12.3. Bioaccumulative potential
2-methylpropan-1-ol; iso-butanol - CAS: 78-83-1
N.A.Test: BCF - Bioconcentrantion factor N.A. - Duration h: N.A. - Notes: N.A.
12.4. Mobility in soil
N.A.
12.5. Results of PBT and vPvB assessment
vPvB Substances: None - PBT Substances: None
12.6. Other adverse effects
None

## SECTION 13: Disposal considerations

13.1. Waste treatment methods
Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

## SECTION 14: Transport information

14.1. UN number
- ADR-UN number: 1263
- IATA-Un number: 1263
- IMDG-Un number: 1263

14.2. UN proper shipping name
- ADR-Shipping Name: PAINT or PAINT RELATED MATERIAL
- IATA-Technical name: PAINT or PAINT RELATED MATERIAL
- IMDG-Technical name: PAINT or PAINT RELATED MATERIAL

14.3. Transport hazard class(es)
- ADR-Class: 3
- ADR-Label: 3
- ADR - Hazard identification number: 30
- IATA-Class: 3
- IATA-Label: 3
- IMDG-Class: 3

14.4. Packing group
- ADR-Packing Group: III
- IATA-Packing group: III
- IMDG-Packing group: III

14.5. Environmental hazards
- ADR-Enviromental Pollutant: Yes
- Marine pollutant: Marine pollutant
- Most important toxic component: zinc powder - zinc dust (stabilized)

14.6. Special precautions for user
- ADR-Tunnel Restriction Code: (D/E)
- IATA-Passenger Aircraft: 355
- IATA-Cargo Aircraft: 366
- limited quantity:
- 5L
- IMDG-EMS: F-E ,S-E

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
N.A.

## SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
- Dir. 98/24/EC (Risks related to chemical agents at work)
- Dir. 2000/39/EC (Occupational exposure limit values)
- Regulation (EC) n. 1907/2006 (REACH)
- Regulation (EC) n. 1272/2008 (CLP)
- Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
- Regulation (EU) 2015/830
- Regulation (EU) n. 286/2011 (ATP 2 CLP)
- Regulation (EU) n. 618/2012 (ATP 3 CLP)
- Regulation (EU) n. 487/2013 (ATP 4 CLP)
- Regulation (EU) n. 944/2013 (ATP 5 CLP)
- Regulation (EU) n. 605/2014 (ATP 6 CLP)
- Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:
- Restrictions related to the product:
  - No restriction.
- Restrictions related to the substances contained:
  - Restriction 28
  - Restriction 29

Where applicable, refer to the following regulatory provisions :
- Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).
Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):
Seveso III category according to Annex 1, part 1
Product belongs to category: P5c, E1

15.2. Chemical safety assessment
No Chemical Safety Assessment has been carried out for the mixture.

## SECTION 16: Other information

Full text of phrases referred to in Section 3:
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
H312 Harmful in contact with skin.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.
H318 Causes serious eye damage.
H302 Harmful if swallowed.
H351 Suspected of causing cancer.
H317 May cause an allergic skin reaction.

| Hazard class and hazard category | Code | Description |
|---|---|---|
| Flam. Liq. 3 | 2.6/3 | Flammable liquid, Category 3 |
| Acute Tox. 4 | 3.1/4/Dermal | Acute toxicity (dermal), Category 4 |
| Acute Tox. 4 | 3.1/4/Inhal | Acute toxicity (inhalation), Category 4 |
| Acute Tox. 4 | 3.1/4/Oral | Acute toxicity (oral), Category 4 |
| Asp. Tox. 1 | 3.10/1 | Aspiration hazard, Category 1 |
| Skin Irrit. 2 | 3.2/2 | Skin irritation, Category 2 |
| Eye Dam. 1 | 3.3/1 | Serious eye damage, Category 1 |
| Eye Irrit. 2 | 3.3/2 | Eye irritation, Category 2 |
| Skin Sens. 1,1A,1B | 3.4.2/1-1A-1B | Skin Sensitisation, Category 1,1A,1B |
| Carc. 2 | 3.6/2 | Carcinogenicity, Category 2 |
| STOT SE 3 | 3.8/3 | Specific target organ toxicity - single exposure, Category 3 |
| STOT RE 2 | 3.9/2 | Specific target organ toxicity - repeated exposure, Category 2 |

| | | |
|---|---|---|
| Aquatic Acute 1 | 4.1/A1 | Acute aquatic hazard, category 1 |
| Aquatic Chronic 1 | 4.1/C1 | Chronic (long term) aquatic hazard, category 1 |
| Aquatic Chronic 2 | 4.1/C2 | Chronic (long term) aquatic hazard, category 2 |

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

| **Classification according to Regulation (EC) Nr. 1272/2008** | **Classification procedure** |
|---|---|
| Flam. Liq. 3, H226 | On basis of test data |
| Eye Irrit. 2, H319 | Calculation method |
| Skin Irrit. 2, H315 | Calculation method |
| Aquatic Chronic 1, H410 | Calculation method |

This document was prepared by a competent person who has received appropriate training.
Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.
It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.
This MSDS cancels and replaces any preceding release.

| | |
|---|---|
| ADR: | European Agreement concerning the International Carriage of Dangerous Goods by Road. |
| CAS: | Chemical Abstracts Service (division of the American Chemical Society). |
| CLP: | Classification, Labeling, Packaging. |
| DNEL: | Derived No Effect Level. |
| EINECS: | European Inventory of Existing Commercial Chemical Substances. |
| GefStoffVO: | Ordinance on Hazardous Substances, Germany. |
| GHS: | Globally Harmonized System of Classification and Labeling of Chemicals. |
| IATA: | International Air Transport Association. |
| IATA-DGR: | Dangerous Goods Regulation by the "International Air Transport Association" (IATA). |
| ICAO: | International Civil Aviation Organization. |
| ICAO-TI: | Technical Instructions by the "International Civil Aviation Organization" (ICAO). |
| IMDG: | International Maritime Code for Dangerous Goods. |
| INCI: | International Nomenclature of Cosmetic Ingredients. |
| KSt: | Explosion coefficient. |
| LC50: | Lethal concentration, for 50 percent of test population. |
| LD50: | Lethal dose, for 50 percent of test population. |
| PNEC: | Predicted No Effect Concentration. |
| RID: | Regulation Concerning the International Transport of Dangerous Goods |

| | |
|---|---|
| | by Rail. |
| STEL: | Short Term Exposure limit. |
| STOT: | Specific Target Organ Toxicity. |
| TLV: | Threshold Limiting Value. |
| TWA: | Time-weighted average |
| WGK: | German Water Hazard Class. |