Safety Data Sheet





Safety Data Sheet dated 29/4/2016, version 1 In compliance with Regulation (EC) 2015/830

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

1.1. Product identifier

Mixture identification:

Trade name: CIDE

Product type: Water based cleaner

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

Recommended use:

Washing and cleaning products (including solvent based products)

Uses advised against:

Not available

1.3. Details of the supplier of the safety data sheet

Supplier:

AirChem Consumables, LOB 10, Office # 10F14, JAFZA, Dubai, UAE- Tel: +971-4-881

8084, Fax: +971-4-881 6022, Email: airacc@acc.ae

Competent person responsible for the safety data sheet:

airacc@acc.ae

1.4. Emergency telephone number

AirChem Consumables, Tel: +971-4-881 8084, Fax: +971-4-881 6022, Email: airacc@acc.ae (from Sunday to Thursday from 09 AM to 6 PM; Saturdays 09 AM to 2:30 PM)

A list of Poison Control Centers is available at the following link: http://www.who.int/gho/phe/chemical_safety/poisons_centres/en/

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

- Danger, Flam. Liq. 2, Highly flammable liquid and vapour.
- Warning, Eye Irrit. 2, Causes serious eye irritation.
- Warning, STOT SE 3, May cause drowsiness or dizziness.

Aquatic Chronic 3, Harmful to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

The product easily catches fire if it is exposed to an ignition source.

If brought into contact with the eyes, the product causes considerable irritation which can last for over 24 hours.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

EC regulation criteria 1272/2008 (CLP)

Hazard pictograms:



Danger

Hazard statements:

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P210 Keep away from heat - No smoking.

P233 Keep container tightly closed.

P273 Avoid release to the environment.

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

P312 Call a POISON CENTER or physician if you feel unwell.

P370+P378 In case of fire: Use dry chemical, CO2, Halon, Foam.

Special Provisions:

None

Contents:

Mass reaction of ethanol and propane-2-ol

Poly(hexamethylenebiguanide) hydrochloride: 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

Not applicable

3.2. Mixtures

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

10-20 % Mass reaction of ethanol and propane-2-ol

EC: 902-053-3

- 2.6/2 Flam. Liq. 2 H225
- 3.3/2 Eye Irrit. 2 H319
- ◆ 3.8/3 STOT SE 3 H336
- 0.1-1 % Didecyldimethylammonium chloride

Index number: 612-131-00-6, CAS: 7173-51-5, EC: 230-525-2

- 3.1/4/Oral Acute Tox. 4 H302
- ♦ 3.2/1B Skin Corr. 1B H314
- 4.1/A1 Aquatic Acute 1 H400
- 0.1-1 % Poly(hexamethylenebiguanide) hydrochloride

CAS: 27083-27-8

- 3.8/3 STOT SE 3 H335
- ◆ 3.2/2 Skin Irrit. 2 H315
- ◆ 3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317
- 4.1/A1 Aquatic Acute 1 H400
- 4.1/C1 Aquatic Chronic 1 H410
- <0.1% Propan-2-ol

REACH N°. 01-2119457558-25-XXXX, Index number: 603-117-00-0, CAS: 67-63-0, EC: 200-661-7

- 2.6/2 Flam. Liq. 2 H225
- 3.3/2 Eye Irrit. 2 H319
- 3.8/3 STOT SE 3 H336

Declaration of ingredients according to Detergent Regulation 648/2004:

The product also contains: Disinfectants

For the complete text of the hazard and risk phrases refer to paragraph 16

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 immediately and dispose off safely.

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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:

In case of fire: Use dry chemical, CO2, Halon, Foam.

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 ℃. Keep away from unguarded flam e 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)

For more information see Technical date bulletin

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Contained substances

Propan-2-ol - CAS: 67-63-0

EU - LTE mg/m3(8h): 375 - LTE ppm: 100 - STE mg/m3(15min): 568 - STE ppm:

150 - Behaviour: Binding - Notes: A4, IBE

ACGIH - LTE mg/m3(8h): 492 - LTE ppm: 200 - STE mg/m3(15min): 983 - STE ppm: 400 - Behaviour: Binding - Notes: A4, IBE - Critical effects: Irritation of the

upper respiratory tract and eye, central nervous system.

DNEL Exposure Limit Values

Mass reaction of ethanol and propane-2-ol

Worker Professional: 500 mg/m3 - Consumer: 114 - U.M.: mg/m3 - Exposure:

Human Inhalation - Frequency: Long Term, systemic effects

Worker Professional: 1900 mg/m3 - Consumer: 950 - U.M.: mg/m3 - Exposure:

Human Inhalation - Frequency: Short Term, systemic effects

Worker Professional: 343 mg/kg - Consumer: 206 - U.M.: mg/kg - Exposure:

Human Dermal - Frequency: Long Term, systemic effects

Consumer: 87 - U.M.: mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

Propan-2-ol - CAS: 67-63-0

Worker Professional: 888 mg/kg - Consumer: 319 - U.M.: mg/kg - Exposure:

Human Dermal - Frequency: Long Term (repeated)

Worker Professional: 500 mg/m3 - Consumer: 89 - U.M.: mg/m3 - Exposure:

Human Inhalation - Frequency: Long Term (repeated)

Consumer: 26 - U.M.: mg/kg - Exposure: Human Oral - Frequency: Long Term (repeated)

PNEC Exposure Limit Values

Mass reaction of ethanol and propane-2-ol

Target: Sewerage treatment plants - Value: 580 mg/l

Target: Fresh Water - Value: 1.72 mg/l

Target: Marine water - Value: 0.16 mg/l

Target: Freshwater sediments - Value: 8.1 mg/kg

Target: Marine water sediments - Value: 0.744 mg/kg

Target: Soil - Value: 0.63 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:

Use adequate protective respiratory equipment.

Thermal Hazards: None Environmental exposure controls: None Appropriate engineering controls: None

SECTION 9: Physical and chemical properties9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance and colour:	Clear yellow clear liquid		
Odour:	Alcoholic		
Odour threshold:	n.av. mg/m3		
pH:	7		
Melting point / freezing point:	< 0 °C		
Initial boiling point and boiling range:	Initial 80 ℃		
Flash point:	15 ℃		
Evaporation rate:	n.av.		
Solid/gas flammability:	na		
Upper/lower flammability or explosive limits:	n.av. % v/v		
Vapour pressure:	1 kPa		
Vapour density (air=1):	> 1		
Relative density:	0.95 g/ml		
Solubility in water:	Complete		
Solubility in oil:	na		
Partition coefficient (noctanol/water):	n.av.		
Auto-ignition temperature:	> 420 ℃		
Decomposition temperature:	n.av. ℃		
Viscosity:	n.av. mPa.s		
Explosive properties:	Not explosive		
Oxidizing properties:	Not Oxidant		

9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	Complete in water		
Fat Solubility:	na		
Conductivity:	n.av.		
Substance Groups relevant properties:	n.av.		

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

It may generate flammable gases on contact with elementary metals (alkalis and alkaline earth), nitrides, and powerful reducing agents.

It may catch fire on contact with oxidising mineral acids, elementary metals (alkalis and alkaline earth), nitrides, organic peroxides and hydroperoxides, oxidising agents, and reducing agents.

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 mixture:

Not applicable

Toxicological information of the main substances found in the mixture:

Mass reaction of ethanol and propane-2-ol

Type: a) acute toxicity:

Test: LC50 - Route: Inhalation - Species: Rat - Op.: > - Value: 10000 - U.M.: Ppm -

Duration: 6 hours - Source: OECD 403

Test: LD50 - Route: Oral - Species: Rat - Op.: = - Value: 5.84 - U.M.: g/kg - Source:

OCSE 401

Test: LD50 - Route: Skin - Species: Rabbit - Op.: = - Value: 16.4 - U.M.: ml/kg - Source:

OECD 402

Didecyldimethylammonium chloride - CAS: 7173-51-5

Type: a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat - Op.: = - Value: 238 - U.M.: mg/kg - Notes:

OECD TG 401

Test: LD50 - Route: Oral - Species: Rat - Op.: > - Value: 658 - U.M.: mg/kg

Test: LD50 - Route: Skin - Species: Rabbit - Op.: = - Value: 3342 - U.M.: mg/kg

Type: b) skin corrosion/irritation:

Test: Skin Irritant - Route: Skin - Species: Rabbit - Op.: Positive - Notes: OECD TG 404

Poly(hexamethylenebiguanide) hydrochloride - CAS: 27083-27-8

Type: a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat - Op.: > - Value: 2000 - U.M.: mg/kg

Propan-2-ol - CAS: 67-63-0

Type: a) acute toxicity:

```
Test: LD50 - Route: Oral - Species: Rat - Op.: = - Value: 5.84 - U.M.: g/kg
Test: LD50 - Route: Skin - Species: Rabbit - Op.: = - Value: 16.4 - U.M.: ml/kg
Test: LD50 - Route: Skin - Species: Rabbit - Op.: = - Value: 12870 - U.M.: mg/kg
Test: LC50 - Route: Inhalation - Species: Rat - Op.: = - Value: 72.6 - U.M.: mg/l -
Duration: 4 hours
Test: LC50 - Route: Inhalation Vapour - Species: Rat - Op.: > - Value: 10000 - U.M.: Ppm
- Duration: 6 hours - Notes: Male and female
Type: b) skin corrosion/irritation:
Test: Skin Irritant - Species: Rabbit - Op.: Positive
Type: c) serious eye damage/irritation:
Test: Eye Irritant - Species: Rabbit - Op.: Positive
Type: f) carcinogenicity:
Test: NOAEC - Species: Rat - Op.: = - Value: 5000 - U.M.: Ppm
Type: g) reproductive toxicity:
Test: NOAEL - Species: Rabbit - Op.: = - Value: 480 - U.M.: mg/kg
```

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eve damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

SECTION 12: Ecological information

12.1. Toxicity

Based on the information available it is not expected that this product may cause any adverse environmental effect when use instructions and disposal recommendations are followed. Adopt good working practices, so that the product is not released into the environment. List of substances hazardous to the environment and eco-toxicological information available:

```
Mass reaction of ethanol and propane-2-ol
Type: a) Aquatic acute toxicity:
    Endpoint: LC50 - Species: Fish - Op.: = - Value: 15300 - U.M.: mg/l - Duration h: 96
    - Notes: Pimephales promelas
    Endpoint: LC50 - Species: Daphnia - Op.: = - Value: 5012 - U.M.: mg/l - Duration h: 48 - Notes: Ceriodaphnia dubia
    Endpoint: LC50 - Species: Daphnia - Op.: = - Value: 9248 - U.M.: mg/l - Duration h: 48 - Notes: Daphnia Magna
    Endpoint: LC50 - Species: Algae - Op.: = - Value: 675 - U.M.: mg/l - Duration h: 96 - Notes: Chlorella vulgaris

Didecyldimethylammonium chloride - CAS: 7173-51-5

Type: a) Aquatic acute toxicity:
```

Endpoint: EC50 - Species: Daphnia - Op.: = - Value: 0.062 - U.M.: mg/l - Duration h: 48 - Notes: Daphnia Magna

Endpoint: LC50 - Species: Fish - Op.: = - Value: 0.19 - U.M.: mg/l - Duration h: 96 - Notes: Pimphelas promelas

Endpoint: EC50 - Species: Algae - Op.: = - Value: 0.026 - U.M.: mg/l - Duration h: 96 - Notes: Pseudokirchneriella subcapitata

Endpoint: EC50 - Species: Bacteria - Op.: = - Value: 11 - U.M.: mg/l - Duration h: 3 - Notes: Fango attivo

Poly(hexamethylenebiguanide) hydrochloride - CAS: 27083-27-8

Type: a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish - Op.: = - Value: 0.1 - U.M.: mg/l - Duration h: 96 -

Notes: Oncorhynchus mykiss

Endpoint: EC50 - Species: Daphnia - Op.: = - Value: 0.1 - U.M.: mg/l - Duration h:

48

Propan-2-ol - CAS: 67-63-0

Type: a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish - Op.: = - Value: 1400 - U.M.: mg/l - Duration h: 96 -

Notes: Lepomis machrochirus

Endpoint: LC50 - Species: Fish - Op.: = - Value: 9640 - U.M.: mg/l - Duration h: 96 -

Notes: Pimephales promelas

Endpoint: LC50 - Species: Fish - Op.: > - Value: 100 - U.M.: mg/l - Duration h: 96 -

Notes: Pimephales promelas

Endpoint: EC50 - Species: Daphnia - Op.: = - Value: 2285 - U.M.: mg/l - Duration h:

48 - Notes: Daphnia magna

Endpoint: EC50 - Species: Daphnia - Op.: > - Value: 100 - U.M.: mg/l - Duration h:

48 - Notes: Daphnia magna

Endpoint: EC50 - Species: Algae - Op.: = - Value: 100 - U.M.: mg/l - Duration h: 72

- Notes: Scenedesmus subspicatus

Endpoint: EC50 - Species: Algae - Op.: > - Value: 100 - U.M.: mg/l - Duration h: 72

- Notes: Scenedesmus subspicatus

Type: b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Daphnia - Op.: = - Value: 30 - U.M.: mg/l - Duration h:

504 - Notes: Daphnia magna

12.2. Persistence and degradability

Mass reaction of ethanol and propane-2-ol

Biodegradability: Readily biodegradable - Test: Not applicable - Duration: Not applicable -

%: Not applicable - Notes: Not applicable

Didecyldimethylammonium chloride - CAS: 7173-51-5

Biodegradability: Readily biodegradable - Test: OCSE 301 B: Evolution of CO2, Modified

Sturm. - Duration: 28 days - %: 72 - Notes: Not applicable

Propan-2-ol - CAS: 67-63-0

Biodegradability: Readily biodegradable - Test: Not applicable - Duration: Not applicable -

%: Not applicable - Notes: Not applicable

12.3. Bioaccumulative potential

Didecyldimethylammonium chloride - CAS: 7173-51-5

Bioaccumulation: Not bioaccumulative - Test: Not applicable Not applicable - Duration:

Not applicable - Notes: Not applicable

Propan-2-ol - CAS: 67-63-0

Bioaccumulation: Not bioaccumulative - Test: Kow - Partition coefficient 0.05 - Duration:

Not applicable - Notes: Not applicable

12.4. Mobility in soil

Propan-2-ol - CAS: 67-63-0

Mobility in soil: Mobile - Test: Not applicable Not applicable - Duration: Not applicable -

Notes: Not applicable

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

Product and its residue:

Do not dispose in the canals of wastewater, waterways and soil.

The codes indicating the type of waste are considered based on the recommendations and scheduled use of this product. Different codes may be assigned bused on the end user's use and the characteristics of the disposal.

Waste code CER/EWC (2000/532/CE), attributable to the product as:

07 06 01* Aqueous solution of washing and mother liquors

HP3 - HP4 - HP14

Any remaining product should be disposed of with the material.

Containers/contaminated packaging

Containers, even completely empty, must not be disposed in the environment. The packigings which can not be cleaned should be disposed of as the material.

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: 1987 IATA-UN Number: 1987 IMDG-UN Number: 1987

14.2. UN proper shipping name

ADR-Shipping Name: ALCOHOLS, N.O.S. (vapour pressure at 50 ℃ more than 110

kPa)(Mass reaction of ethanol and propane-2-ol)

ALCOHOLS, N.O.S. (vapour pressure at 50 °C more than 110 IATA-Shipping Name:

kPa)(Mass reaction of ethanol and propane-2-ol)

ALCOHOLS, N.O.S. (vapour pressure at 50 °C more than 110 **IMDG-Shipping Name:**

kPa)(Mass reaction of ethanol and propane-2-ol)

14.3. Transport hazard class(es)

ADR-Class: 3 ADR-Label: 3 ADR-Classification code: F1 IATA-Class: 3 IATA-Label: 3 IMDG-Class: 3

14.4. Packing group

ADR-Packing Group: Ш IATA-Packing group: Ш IMDG-Packing group: Ш

14.5. Environmental hazards

ADR-Enviromental Pollutant: No IMDG-Marine pollutant: No 14.6. Special precautions for user

ADR-Subsidiary risks:

ADR-S.P.: 274 601 640D

ADR-Transport category (Tunnel restriction code): (D/E)

IATA-Passenger Aircraft: 353 IATA-Subsidiary risks: IATA-Cargo Aircraft: 364 IATA-S.P.: A3 A180 IATA-ERG: IMDG-EmS: F-E , S-D

IMDG-Subsidiary risks:

IMDG-Stowage and handling: Category B

IMDG-Segregation:

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

nd

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)

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:

Restriction 3

Restriction 40

Restrictions related to the substances contained:

No restriction.

Volatile Organic compounds - VOCs = 30.04 %

Volatile Organic compounds - VOCs = 285.38 g/l

Volatile CMR substances = 0.00 %

Halogenated VOCs which are assigned the risk phrase R40 = 0.00 %

Organic Carbon - C = 0.00

Where applicable, refer to the following regulatory provisions:

Regulation (EC) n°648/2004 (detergents).

15.2. Chemical safety assessment

Not available

SECTION 16: Other information

Full text of phrases referred to in Section 3:

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H400 Very toxic to aquatic life.

H335 May cause respiratory irritation.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H410 Very toxic to aquatic life with long lasting effects.

Hazard class and hazard category	Code	Description
Flam. Liq. 2	2.6/2	Flammable liquid, Category 2
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Corr. 1B	3.2/1B	Skin corrosion, Category 1B
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
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
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3

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 3	4.1/C3	Chronic (long term) aquatic hazard, category 3

This safety data sheet has been completely updated in compliance to Regulation 2015/830.

This document was prepared by a competent person who has received appropriate training.

This MSDS cancels and replaces any preceding release.

Where applicable, refer to the following regulatory provisions:

Council Directive 67/548/EEC (Classification, packaging and labelling of dangerous substances) and subsequent amendments; Regulation (EC) n°1272/2 008; Regulation (EC) N. 790/2009 (annex VI), Regulation (EC) n. 1907/2006 (REACH).

Commission Directive 1999/45/EC (Classification, packaging and labelling of dangerous preparation) and subsequent amendments; Commission Directive n. 2006/8/CE. Directive 2012/18/EU (Seveso III)

Directive 2013/10/EU (aerosols) amending Directive 75/324/EEC on the approximation of the laws of the Member States relating to aerosol dispensers in order to adapt its labelling provisions to Regulation (EC) n°1272/2008 on class ification, labelling and packaging of substances and mixtures and subsequent amendments.

Regulation (EC) No 1223/2009 on cosmetic products and subsequent amendments. Regulation (EU) No 126/2013 amending Annex XVII to Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and subsequent amendments. Regulation (EC) N. 304/2003 and subsequent amendments. Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products and subsequent amendments.

Directives 91/156/CEE, 91/689/CEE, 94/62/CE (Disposal of waste) and subsequent amendments.

The European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), current edition.

Regulations IATA/ICAO = Dangerous Goods Regulations by air, current edition.

RID = Regulations concerning the International Carriage of Dangerous Goods by Rail, current edition.

IMDG Code = International Maritime Dangerous Goods Code produced by the International Maritime Organization (IMO), current edition.

Main bibliographic sources:

ESIS: European chemical Substances Information System and Environmental hazard classification.

Occupational exposure limit values (Commission Directives 2000/39/EC and 2006/15/CE)

NIOSH - Registry of toxic effects of chemical substances (1983)

Material Safety Data Sheets of chemicals, REACH database

Material Safety Data Sheet and Technical Data of raw material as by Supplier.

Abbreviations and acronyms:

TLV-TWA = Threshold Limit Value- time-weighed average, 8-hour workday, 40-hour workweek; TLV-STEL-15 min = Threshold Limit Values - Short Term Exposure Limit; TLV-C = Ceiling exposure limit; Notes: IBE= Biological Exposure Indices; SEN= sensitizer; Skin= Can be absorbed through the skin. Carcinogenicity categories: A1 / A2 = confirmed / suspected human carcinogen; A3 = Animal carcinogen; A4 / A5 = Not Classificable/not suspected as a human carcinogen. ACGIH = American Conference on Governmental Industrial Hygienists. OEL =Occupational Exposure Limit. VLPE = Occupational Exposure Limit Values. LTE =long term exposure, STE=short term exposure.

n.av.= Not Available, n.a. = not applicable; LD50=lethal dose (solids and liquids), LC50=lethal concentration (gases) that will kill 50% of the test animals; ADR= European Agreement concerning the International Carriage of Dangerous Goods by Road. Regulations IATA/ICAO = Dangerous Goods Regulations by air, current edition.

RID = Regulations concerning the International Carriage of Dangerous Goods by Rail, current

edition. IMDG Code = International Maritime Dangerous Goods Code produced by the International Maritime Organization (IMO), current edition.

PBT = Persistent, Bioaccumulative and Toxic substances.; vPvB = very Persistent and very Bioaccumulative substances; CMR = Carcinogenic, mutagenic or reproduction toxic substances. 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.