

Revision nr.1 Dated 1/22/2019 First compilation Page n. 1 / 12

## **Safety Data Sheet**

According to U.S.A. Federal Hazcom 2012

#### 1. Identification

#### 1.1. Product identifier

**CERA FLUIDA** Product name

Chemical name and synonym Waxes and polimers in solution

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

SOLUTION WAXES TO PROTECT AND BRIGHTEN.

Tel.

Fax

Identified Uses	Industrial	Professional	Consumer	
ADHESIVE SYSTEM/TREATMEN SECTOR	33.000000000000000000000000000000000000	✓	-	
1.3. Details of the supplier of the sa	fety data sheet			
Name	Tenax Spa			
Full address	Via I Maggio, 226			
District and Country	37020 Volargne	(	(VR)	

+39 045 6887593 +39 045 6862456

e-mail address of the competent person responsible for the Safety Data Sheet

Product distribution by: **Tenax Usa** 

7606 Whitehall Executive Center Drive Suite 400, 28273 Charlotte NC, US

Tel. 001 7045831173 - Fax 001 7045833166

info@tenaxusa.com

msds@tenax.it

1.4. Emergency telephone number

For urgent inquiries refer to 800.883300 (24h) Centro Antiveleni (Bergamo)

0 800 314 7900 (Turkey) only, or +90 0312 433 70 01 Toxicology Department and

**Poisons Centre** 

**Poisons Information Centre (Tehran)** +98 21 6419306 / +98 21 6405569

+91 484 4008056 Poison Control Centre (South India)

(011) 642 2417 / (011) 488 3108 **Anti-Poison Centre (Johannesburg)** 

## 2. Hazards identification

#### 2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Flammable liquid, category 2 Carcinogenicity, category 1B Acute toxicity, category 4 Aspiration hazard, category 1 Specific target organ toxicity - single exposure,

category 3

Hazard pictograms:



Highly flammable liquid and vapour.

May cause cancer. Harmful if swallowed.

May be fatal if swallowed and enters airways.

May cause drowsiness or dizziness.



Revision nr.1 Dated 1/22/2019 First compilation Printed on 2/7/2019 Page n. 2 / 12

#### 2. Hazards identification ...

Signal words: Danger

Hazard statements:

**H225** Highly flammable liquid and vapour.

H350 May cause cancer.H302 Harmful if swallowed.

**H304** May be fatal if swallowed and enters airways.

**H336** May cause drowsiness or dizziness.

Precautionary statements:

Prevention:

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

**P261** Avoid breathing dust / fume / gas / mist / vapours / spray.

**P202** Do not handle until all safety precautions have been read and understood.

P242 Use only non-sparking tools.

**P201** Obtain special instructions before use.

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

P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P264 Wash the hands thoroughly after handling.
P240 Ground / bond container and receiving equipment.
P243 Take precautionary measures against static discharge.

**P241** Use explosion-proof electrical / ventilating / lighting / . . . / equipment.

Response:

P331 Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower.

**P308+P313** IF exposed or concerned: Get medical advice / attention.

P301+P310 IF SWALLOWED: immediately call a POISON CENTER / doctor / . . .

P312 Call a POISON CENTER / doctor / . . . / if you feel unwell.

P304+P340 IF INHALED: remove person to fresh air and keep comfortable for breathing.

P330 Rinse mouth.

P370+P378 In case of fire: use CO2, sand, powder to extinguish.

Storage:

P403+P235 Store in a well-ventilated place. Keep cool.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal:

**P501** Dispose of contents / container according to applicable law.

#### 2.2. Other hazards

Information not available

## 3. Composition/information on ingredients

### 3.2. Mixtures

Contains:

Identification Conc. % Classification:

1,2-DICHLOROPROPANE

CAS 78-87-5 54.12 Flammable liquid, category 2 H225, Carcinogenicity, category 1B H350,

Acute toxicity, category 4 H302, Acute toxicity, category 4 H332

EC 201-152-2 INDEX 602-020-00-0

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

CAS 64742-48-9 33.723 Flammable liquid, category 3 H226, Aspiration hazard, category 1 H304,

Specific target organ toxicity - single exposure, category 3 H336

EC 919-857-5

INDEX

**N-BUTYL ACETATE** 

CAS 123-86-4 3.747 Flammable liquid, category 3 H226, Specific target organ toxicity - single exposure,

category 3 H336

EC 204-658-1 INDEX 607-025-00-1

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



Revision nr.1 Dated 1/22/2019 First compilation Printed on 2/7/2019 Page n. 3 / 12

## 4. First-aid measures

#### 4.1. Description of first aid measures

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

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately. INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

## 5. Fire-fighting 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).

#### 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.

#### 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. 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.



Revision nr.1 Dated 1/22/2019 First compilation Printed on 2/7/2019 Page n. 4 / 12

#### 6. Accidental release measures ..../>

#### 6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

## 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

## 8. Exposure controls/personal protection

#### 8.1. Control parameters

Regulatory References:

USA NIOSH-REL NIOSH publication No. 2005-149, 3th printing, 2007.

USA OSHA-PEL Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.

USA CAL/OSHA-PEL California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits

(PELs).

TLV-ACGIH ACGIH 2018

1,2-DICHLOROPROPANE							
Threshold Limit \	/alue						
Type	Country	TWA/8h		STEL/15r	ōmin		
		mg/m3	ppm	mg/m3	ppm		
TLV-ACGIH	-	46	10				
OSHA	USA	350	75				
CAL/OSHA	USA	350	75	510	110		

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics								
<b>Threshold Limit</b>	Value							
Type	Country	TWA/8h		STEL/15r	STEL/15min			
		mg/m3	ppm	mg/m3	ppm			
TLV-ACGIH	-	1200	197					

N-BUTYL ACETATE							
Threshold Limit	Value						
Type	Country	TWA/8h		STEL/15r	min		
		mg/m3	ppm	mg/m3	ppm		
TLV-ACGIH	-		50		150		
OSHA	USA	710	150				
CAL/OSHA	USA	710	150	950	200		
NIOSH	USA	710	150	950	200		

#### Legend:

(C) = CEILING; INHAL = Inhalable Fraction; RESP = Respirable Fraction; THORA = Thoracic Fraction.

#### 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



Revision nr.1 Dated 1/22/2019 First compilation Printed on 2/7/2019 Page n. 5 / 12

## 8. Exposure contr<u>ols/personal\_protection\_\_.../></u>

well aired through effective local aspiration. Personal protective equipment must comply with current regulations.

HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

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 I professional long-sleeved overalls and safety footwear. Wash body with soap and water after removing protective clothing. EYE PROTECTION

Wear airtight protective goggles (OSHA 29 CFR 1910.133).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose limit of use will be defined by the manufacturer (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). 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 or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84, OSHA 29 CFR 1910.134.

**ENVIRONMENTAL EXPOSURE CONTROLS** 

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

## 9. Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

PropertiesValueInformationAppearanceliquidColourwhite

Odour Aromatic
Odour threshold Not available
pH Not available
Melting point / freezing point Not available

Initial boiling point > 35 °C (95 °F)

Boiling range Not available
Flash point < 23 °C (73,4 °F)

Not available **Evaporation Rate** 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 11

Solubility insoluble in water
Partition coefficient: n-octanol/water Not available
Auto-ignition temperature Not available
Decomposition temperature Not available

Viscosity Not available Explosive properties Not available Oxidising properties Not available

9.2. Other information

VOC: 91,59 % - 842,66 g/litre

## 10. Stability and reactivity

### 10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

#### 1,2-DICHLOROPROPANE

Decomposes on contact with: naked flames, overheated surfaces.

N-BUTYL ACETATE



Revision nr.1 Dated 1/22/2019 First compilation Printed on 2/7/2019 Page n. 6 / 12

#### 10. Stability and reactivity ...

Decomposes on contact with: water.

#### 10.2. Chemical stability

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

#### 10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

#### 1,2-DICHLOROPROPANE

Risk of explosion on contact with: aluminium,metal powders. May react dangerously with: alkaline metals, alkaline earth metals, sodium amides. Forms explosive mixtures with: air.

#### N-BUTYL ACETATE

Risk of explosion on contact with: strong oxidising agents. May react dangerously with: alkaline hydroxides, potassium tert-butoxide. Forms explosive mixtures with: air.

#### 10.4. Conditions to avoid

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

#### N-BUTYL ACETATE

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

#### 10.5. Incompatible materials

#### N-BUTYL ACETATE

Incompatible with: water, nitrates, strong oxidants, acids, alkalis, zinc.

#### 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.

#### 1,2-DICHLOROPROPANE

May develop: hydrochloric acid.

#### 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

### 11.1. Information on toxicological effects

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



Revision nr.1 Dated 1/22/2019 First compilation Printed on 2/7/2019 Page n. 7 / 12

#### 11. Toxicological information .../>>

1,2-DICHLOROPROPANE

LD50 (Oral) LD50 (Dermal) LC50 (Inhalation) > 2200 mg/kg Rat 10100 mg/kg Rabbit 9.4 mg/l/4h

N-BUTYL ACETATE

 LD50 (Oral)
 > 6400 mg/kg Rat

 LD50 (Dermal)
 > 5000 mg/kg Rabbit

 LC50 (Inhalation)
 21.1 mg/l/4h Rat

## SKIN CORROSION / IRRITATION

Repeated exposure may cause skin dryness or cracking. Does not meet the classification criteria for this hazard class

#### SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

#### RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

#### GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

#### CARCINOGENICITY

May cause cancer

Carcinogenicity Assessment:

78-87-5 1,2-DICHLOROPROPANE

ACGIH:: A4 IARC:3

#### REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

### STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

#### STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

#### ASPIRATION HAZARD

Toxic for aspiration

## 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

## 12.1. Toxicity

Information not available

## 12.2. Persistence and degradability



Revision nr.1 Dated 1/22/2019 First compilation Printed on 2/7/2019 Page n. 8 / 12

#### 12. Ecological information .../>>

1,2-DICHLOROPROPANE

Solubility in water 1000 - 10000 mg/l

NOT rapidly degradable

N-BUTYL ACETATE

Solubility in water 1000 - 10000 mg/l

12.3. Bioaccumulative potential

1,2-DICHLOROPROPANE

Partition coefficient: n-octanol/water 1.99

N-BUTYL ACETATE

Partition coefficient: n-octanol/water 2.3

BCF 15.3

12.4. Mobility in soil

1,2-DICHLOROPROPANE

Partition coefficient: soil/water 1.72

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

## 13. Disposal considerations

### 13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

## 14. Transport information

## 14.1. UN number

ADR / RID, IMDG, IATA: 1993

## 14.2. UN proper shipping name

ADR / RID: FLAMMABLE LIQUID, N.O.S. (1,2-DICHLOROPROPANE; Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics,

<2% aromatics)

IMDG: FLAMMABLE LIQUID, N.O.S. (1,2-DICHLOROPROPANE; Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics,

<2% aromatics)

IATA: FLAMMABLE LIQUID, N.O.S. (1,2-DICHLOROPROPANE; Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics,

<2% aromatics)



Revision nr.1 Dated 1/22/2019 First compilation Printed on 2/7/2019 Page n. 9 / 12

#### 14. Transport information ...

#### 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: II

#### 14.5. Environmental hazards

ADR / RID: NO IMDG: NO IATA: NO

#### 14.6. Special precautions for user

ADR / RID: HIN - Kemler: 33 Limited Quantities: 1 L Tunnel restriction code: (D/E)

Special Provision: 640C

IMDG: EMS: F-E, S-E Limited Quantities: 1 L

IATA: Cargo: Maximum quantity: 60 L Packaging instructions: 364
Pass.: Maximum quantity: 5 L Packaging instructions: 353

Special Instructions: A3

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

Information not relevant

## 15. Regulatory information

## 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### U.S. Federal Regulations

TSCA:

All components are listed on TSCA Inventory.

Clean Air Act Section 112(b):

78-87-5 1,2-DICHLOROPROPANE

Clean Air Act Section 602 Class I Substances:

No component(s) listed.

Clean Air Act Section 602 Class II Substances:

No component(s) listed.

Clean Water Act - Priority Pollutants:

78-87-5 1,2-DICHLOROPROPANE

Clean Water Act - Toxic Pollutants:

78-87-5 1,2-DICHLOROPROPANE

DEA List I Chemicals (Precursor Chemicals):

No component(s) listed.

DEA List II Chemicals (Essential Chemicals):



Revision nr.1 Dated 1/22/2019 First compilation Printed on 2/7/2019 Page n. 10 / 12

#### 15. Regulatory information .../>>

No component(s) listed.

EPA List of Lists: 313 Category Code:

78-87-5 1,2-DICHLOROPROPANE

67-56-1 METHANOL

EPCRA 302 EHS TPQ: No component(s) listed.

EPCRA 304 EHS RQ: No component(s) listed.

CERCLA RQ:

78-87-5 1,2-DICHLOROPROPANE 123-86-4 N-BUTYL ACETATE

67-56-1 METHANOL

EPCRA 313 TRI:

78-87-5 1,2-DICHLOROPROPANE

67-56-1 METHANOL

RCRA Code:

78-87-5 1,2-DICHLOROPROPANE

67-56-1 METHANOL

CAA 112 (r) RMP TQ: No component(s) listed.

State Regulations

Massachussetts:

78-87-5 1,2-DICHLOROPROPANE 123-86-4 N-BUTYL ACETATE

Minnesota:

78-87-5 1,2-DICHLOROPROPANE 123-86-4 N-BUTYL ACETATE

New Jersey:

78-87-5 1,2-DICHLOROPROPANE 123-86-4 N-BUTYL ACETATE

New York:

78-87-5 1,2-DICHLOROPROPANE 123-86-4 N-BUTYL ACETATE

Pennsylvania:

78-87-5 1,2-DICHLOROPROPANE 123-86-4 N-BUTYL ACETATE

California:

78-87-5 1,2-DICHLOROPROPANE 123-86-4 N-BUTYL ACETATE

Proposition 65:

WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

78-87-5 1,2-DICHLOROPROPANE C

International Regulations

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



Revision nr.1 Dated 1/22/2019 First compilation Printed on 2/7/2019 Page n. 11 / 12

#### 15. Regulatory information .../>>

Candadian WHMIS Information not available

#### 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H350 May cause cancer.
H302 Harmful if swallowed.
H332 Harmful if inhaled.

**H304** May be fatal if swallowed and enters airways.

**H336** May cause drowsiness or dizziness.

#### LEGEND:

- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- 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
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- 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.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

#### GENERAL BIBLIOGRAPHY:

- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh Registry of Toxic Effects of Chemical Substances
- INRS Fiche Toxicologique (toxicological sheet)
- Patty Industrial Hygiene and Toxicology
- N.I. Sax Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals Ministry of Health and ISS (Istituto Superiore di Sanità) Italy
- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".



Revision nr.1 Dated 1/22/2019 First compilation Printed on 2/7/2019 Page n. 12 / 12

- New Jersey Worker and Community Right to know Act N.J.S.A. NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

#### 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.