

## ENGLISH

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifiers

Product name: IDENTIFICATION System - REAGENT

Product Number: 80260

#### 1.2 Identified uses of the relevant substance or mixture and uses advised against

Identified uses relevant: Professional uses, Health services, scientific research and development

#### 1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Liofilchem®

Address: Via Scozia, zona industriale, 64026 - Roseto degli Abruzzi (TE)

Telephone number: 085/8930745

Fax number: 085/8930330

E-mail address: liofilchem@liofilchem.net

#### 1.4 Emergency telephone number

+39 02-66101029 (Centro Antiveneni Niguarda Cà Granda - Milano).

This is a summary MSDS for a kit, for the full MSDS for each of the components refer to section 16.

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

##### Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Flam. Liq. 2, Flammable liquids (Category 2); H225

Acute Tox. 4, Acute toxicity (Category 4); H302, H312, H332

Skin Corr. 1A, Skin corrosion (Category 1A); H314

Eye Dam. 1, Serious eye damage (Category 1); H318

STOT SE 3, Specific target organ toxicity - single exposure (Category 3); H335, H336

Repr. 1B, Reproductive toxicity (Category 1B); H360FD

Aquatic Chronic 3 Chronic toxicity to the aquatic environment (Category 3); H412

#### 2.2 Label elements

##### Labelling according Regulation (EC) No 1272/2008 [CLP]

##### Pictogram



##### Signal word

Danger

##### Hazard statement(s)

H225	Highly flammable liquid and vapour.
H302 + H312 + H332	Harmful if swallowed, in contact with skin or if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H360FD	May damage fertility. May damage the unborn child.
H412	Harmful to aquatic life with long lasting effects.

##### Precautionary statement(s)

P201	Obtain special instructions before use.
P210	Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P243	Take precautionary measures against static discharge.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
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 or doctor/physician.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.

**Supplemental Hazard Statements** none

#### 2.3 Other hazards - none

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Refer to component MSDS

### 4. FIRST AID MEASURES

Refer to component MSDS

### 5. FIRE-FIGHTING MEASURES

Refer to component MSDS

### 6. ACCIDENTAL RELEASE MEASURES

Refer to component MSDS

### 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Do not eat or drink in work areas, wash hands after use; and remove contaminated clothing and protective equipment before entering areas where you eat.

#### 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.  
Recommended storage temperature, see the product label.

#### 7.3 Specific end uses

Apart from the uses described in section 1.2 are not covered other specific uses.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Refer to component MSDS

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Refer to component MSDS

### 10. STABILITY AND REACTIVITY

Refer to component MSDS

### 11. TOXICOLOGICAL INFORMATION

Refer to component MSDS

### 12. ECOLOGICAL INFORMATION

Refer to component MSDS

### 13. DISPOSAL CONSIDERATIONS

Refer to component MSDS

### 14. INFORMAZIONI SUL TRASPORTO

#### 14.1 UN number

ADR/RID: -                      IMDG: -                      IATA: -

Refer to component MSDS

#### 14.2 UN proper shipping name

ADR/RID: Refer to component MSDS

IMDG: Refer to component MSDS

IATA: Refer to component MSDS

#### 14.3 Transport hazard class(es)

ADR/RID: -                      IMDG: -                      IATA: -

Refer to component MSDS

#### 14.4 Packaging group

ADR/RID: -                      IMDG: -                      IATA: -

Refer to component MSDS



## **Training advice**

The product must be used by qualified personnel. It is recommended to provide basic training with regard to safety and health at work to ensure proper handling of the product.

## **Further information**

This sheet replaces any previous edition.

The information in this document is based on the present state of our knowledge. The user must ensure the accuracy and completeness of such information in relation to the specific use intended.

Liofilchem® shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.liofilchem.net](http://www.liofilchem.net) for additional terms and conditions of sale.

Previous date: 19.09.2014

Revision date: 01.06.2015

Revision Number: rev. 6

## ENGLISH

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifiers

Product name: Vaseline oil

Product Number: 80278-80279-80408-80411-87006

#### 1.2 Identified uses of the relevant substance or mixture and uses advised against

Identified uses relevant: Professional uses, Health services, scientific research and development

#### 1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Liofilchem®

Address: Via Scozia, zona industriale, 64026 - Roseto degli Abruzzi (TE)

Telephone number: 085/8930745

Fax number: 085/8930330

E-mail address: liofilchem@liofilchem.net

#### 1.4 Emergency telephone number

+39 02-66101029 (Centro Antiveneni Niguarda Cà Granda - Milano).

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

This product does not meet the criteria for classification in any hazard class in accordance to Regulation (EC) No. 1272/2008. concerning the classification, labelling and packaging of substances and mixtures.

#### 2.2 Label elements

The product does not need to be labeled in accordance with EC directives or respective national laws.

#### 2.3 Other hazards - none

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

##### Hazardous substances

The product does not need to be labeled in accordance with EC directives or respective national laws.

##### Additional Information:

For the full text of H codes and R phrases mentioned in this section, see section 16

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Wash off with soap and plenty of water.

**In case of eye contact:** As precaution, flush eyes with water as a precaution.

**If swallowed:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

no data available

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

no data available

### 5. FIRE-FIGHTING MEASURES

#### 5.1 Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### 5.2 Special hazards arising from the substance or mixture

Carbon monoxide, carbon dioxide, fumes of unburnt hydrocarbons.

#### 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

### 6. ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation.

## 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided

## 6.3 Metodi e materiali per il contenimento e per la bonifica

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

## 6.4 Reference to other sections

For information on safe handling, see Chapter 7.

For information on personal protection equipment see Chapter 8.

For disposal information see Chapter 13.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Do not eat, drink or smoke in work areas, wash hands after use; and remove contaminated clothing and protective equipment before entering areas where you eat.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature, see the product label.

### 7.3 Specific end uses

Apart from the uses described in section 1.2 are not covered other specific uses.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Components with workplace control parameters

Contains no substances with occupational exposure limit value.

### 8.2 Exposure controls

#### Exposure controls

Handle in accordance with good hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

Eyes/Face Protection: It is advisable wear safety goggles

Skin protection: Handle with gloves

Body Protection: Use protective clothes in accordance with laboratory good practices.

Respiratory protection: It is advisable wear dust mask.

#### Environmental exposure control

For information relating to environmental precautions, see chapter 6.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

#### Appearance

Form	Liquid
Color	Colorless

#### Odour

No data available

#### Odour Threshold

No data available

#### pH

No data available

#### Melting point/ freezing point

No data available

#### Initial boiling point and boiling range

No data available

#### Flash point

No data available

#### Evaporation rate

No data available

#### Flammability (solid, gas)

No data available

#### Upper / lower flammability or explosive limits

No data available

#### Vapour pressure

at 20°C max 0.01

#### Vapour density

No data available

#### Relative density

0.864 – 0.877 at 15°C

#### Water solubility

soluble

#### Partition coefficient: n-octanol/water

No data available

#### Autoignition temperature

Product not selfigniting

#### Decomposition temperature

No data available

#### Viscosity

No data available

#### Explosive properties

Product is not explosive

#### Oxidizing properties

No data available

### 9.2 Other safety information

no data available

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

Stable under recommended storage conditions

### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

Heat, flames and other ignition source.

### 10.5 Incompatible materials

Strong oxidizing agents.

### 10.6 Hazardous decomposition products

No decomposition when used for the intended uses.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

**Acute toxicity:** no data available

**Skin corrosion/irritation:** no data available

**Serious eye damage/eye irritation:** no data available

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:** no data available

**Carcinogenicity:** IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen by IARC or expected.

**Reproductive toxicity:** no data available

**Specific target organ toxicity - single exposure:** no data available

**Specific target organ toxicity - repeated exposure:** no data available

**Aspiration hazard:** no data available

**Additional information:** RTECS: no data available

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

no data available

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

no data available

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

This mixture contains no substances evaluated PBT or vPvB

### 12.6 Other adverse effects

no data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

Not be disposed of with household waste. Do not discharge into sewers.

The product must be specially treated adhering to official regulations administrative. Offer surplus and non-recyclable solutions to a licensed disposal company.

#### Contaminated packaging

Dispose of as unused product.



## ENGLISH

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifiers

Product name: Kovac's Reagent

Product Number: 080401-080413-080415

#### 1.2 Identified uses of the relevant substance or mixture and uses advised against

Identified uses relevant: Professional uses, Health services, scientific research and development

#### 1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Liofilchem®

Address: Via Scozia, zona industriale, 64026 - Roseto degli Abruzzi (TE)

Telephone number: 085/8930745

Fax number: 085/8930330

E-mail address: liofilchem@liofilchem.net

#### 1.4 Emergency telephone number

+39 02-66101029 (Centro Antiveneni Niguarda Cà Granda - Milano).

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]**

Flam. Liq. 3, Flammable liquids (Category 3); H226

Skin Corr. 1B, Skin corrosion (Category 1B); H314

Eye Dam. 1, Serious eye damage (Category 1); H318

STOT SE 3, Specific target organ toxicity - single exposure (Category 3); H335, H336

#### 2.2 Label elements

**Labelling according Regulation (EC) No 1272/2008 [CLP]**

#### Pictogram



#### Signal word

Danger

#### Hazard statement(s)

H226 Flammable liquid and vapour.  
H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.  
H335 May cause respiratory irritation.  
H336 May cause drowsiness or dizziness.

#### Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Take precautionary measures against static discharge.  
P243  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
  
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
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 or doctor/physician.

**Supplemental Hazard Statements** none

#### 2.3 Other hazards - none

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

## Hazardous substances

CAS n°	EC n°	Index n°	Registration number REACH	Concentration	Classification according Regulation (EC) No 1272/2008
<b>Isobutyl alcohol</b>					
78-83-1	201-148-0	603-108-00-1	-	75.0%	Flam. Liq. 3; Skin Irrit. 2; Eye Dam. 1 ; STOT SE 3; H226, H315, H318, H335, H336
<b>Chloridric acid 37%</b>					
7647-01-0	231-595-7	-	-	25.0%	Met. Corr. 1; Skin Corr. 1B; STOT SE 3; H290, H314, H335

### Additional Information:

For the full text of H codes and R phrases mentioned in this section, see section 16

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Consult a physician.

**In case of eye contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a physician.

**If swallowed:** Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.

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

no data available

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

no data available

## 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### 5.2 Special hazards arising from the substance or mixture

Oxides of Carbon, Hydrogen chloride gas.

### 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Remove all sources of ignition. Ensure adequate ventilation.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided

### 6.3 Metodi e materiali per il contenimento e per la bonifica

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For information on safe handling, see Chapter 7.

For information on personal protection equipment see Chapter 8.

For disposal information see Chapter 13.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Do not eat or drink in work areas, wash hands after use; and remove contaminated clothing and protective equipment before entering areas where you eat.

## 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.  
Recommended storage temperature, see the product label.

## 7.3 Specific end uses

Apart from the uses described in section 1.2 are not covered other specific uses.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Components with workplace control parameters

Chloridric acid: 7647-01-0	Short-term value: 15 mg/m <sup>3</sup> , 10 ppm
IOELV (European Union)	Long-term value: 8 mg/m <sup>3</sup> , 5 ppm
TWA	5 ppm 8 mg/m <sup>3</sup>
STEL	10 ppm 15 mg/m <sup>3</sup>

### 8.2 Exposure controls

#### Exposure controls

Handle in accordance with good hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

Eyes/Face Protection: It is advisable wear safety goggles

Skin protection: Handle with gloves

Body Protection: Use protective clothes in accordance with laboratory good practices.

Respiratory protection: It is advisable wear dust mask.

#### Environmental exposure control

For information relating to environmental precautions, see chapter 6.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

#### Appearance

Form	Liquid
Color	Yellow

#### Odour

No data available

#### Odour Threshold

No data available

#### pH

No data available

#### Melting point/ freezing point

No data available

#### Initial boiling point and boiling range

> 35°C

#### Flash point

> 23°C - < 60°C

#### Evaporation rate

No data available

#### Flammability (solid, gas)

No data available

#### Upper / lower flammability or explosive limits

No data available

#### Vapour pressure

No data available

#### Vapour density

No data available

#### Relative density

No data available

#### Water solubility

No data available

#### Partition coefficient: n-octanol/water

No data available

#### Autoignition temperature

No data available

#### Decomposition temperature

No data available

#### Viscosity

No data available

#### Explosive properties

No data available

#### Oxidizing properties

No data available

### 9.2 Other safety information

no data available

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

Stable under recommended storage conditions

### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

Heat, flames and sparks.

## 10.5 Incompatible materials

Strong oxidizing agents, acid chlorides, acid anhydrides, acid anhydrides, bases, amines, Alkali metals, permanganates, such as potassium permanganate, fluoride, metal acetylides.

## 10.6 Hazardous decomposition products

No decomposition when used for the intended uses.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

**Acute toxicity:** no data available

**Skin corrosion/irritation:** no data available

**Serious eye damage/eye irritation:** no data available

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:** no data available

**Carcinogenicity:** This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification. (Hydrochloric acid)

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Hydrochloric acid)

**Reproductive toxicity:** no data available

**Specific target organ toxicity - single exposure:** no data available

**Specific target organ toxicity - repeated exposure:** no data available

**Aspiration hazard:** no data available

**Additional information:** RTECS: no data available

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

no data available

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

no data available

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

This mixture contains no substances evaluated PBT or vPvB

### 12.6 Other adverse effects

no data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

Not be disposed of with household waste. Do not discharge into sewers.

The product must be specially treated adhering to official regulations administrative. Offer surplus and non-recyclable solutions to a licensed disposal company.

#### Contaminated packaging

Dispose of as unused product.

## 14. INFORMAZIONI SUL TRASPORTO

### 14.1 UN number

ADR/RID: UN 2924                      IMDG: UN 2924                      IATA: UN 2924

### 14.2 UN proper shipping name

ADR/RID: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ISOBUTANOL, HYDROCHLORIC ACID)

IMDG: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ISOBUTANOL, HYDROCHLORIC ACID)

IATA: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ISOBUTANOL, HYDROCHLORIC ACID)

### 14.3 Transport hazard class(es)

ADR/RID: 3 (8)                              IMDG: 3 (8)                              IATA: 3 (8)

#### 14.4 Packaging group

ADR/RID: III                      IMDG: III                      IATA: III

#### 14.5 Environmental hazards

ADR/RID: no                      IMDG: no                      IATA: no

#### 14.6 Special precautions for user

no data available

#### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

### 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of European Parliament and of the Council Regulation (EC) No. 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) and Commission Regulation (EU) No. 453/2010 amending Commission Regulation (EC) No. 1907/2006.

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

The product is classified, coded and labeled in accordance with EU Regulation on Hazardous Materials.

#### 15.2 Chemical Safety Assessment

This product has not been made a chemical safety assessment.

### 16. OTHER INFORMATION

#### Text of H code(s) and R-phrases mentioned in Section 3

Met. Corr. 1 Corrosive to metals (Category 1)

Skin Irrit. 2 Skin irritation (Category 2)

H290 May be corrosive to metals.

H315 Causes skin irritation.

#### Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CLP: Regulation concerning the classification, labelling and packaging of substances and mixtures, Regulation (EC) No. 1272/2008.

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IATA: International Air Transport Association

IMDG: International Maritime Code for Dangerous Goods

CL50: Middle lethal concentration of individuals in essay

DL50: The median lethal dose that causes death in 50% of individuals in essay

PBT: Persistent, bioaccumulative and toxic substance

REACH: Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), Regulation (EC) No. 1907/2006

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail

vPvB: Very persistent and very bioaccumulative substance

#### Training advice

The product must be used by qualified personnel. It is recommended to provide basic training with regard to safety and health at work to ensure proper handling of the product.

#### Further information

This sheet replaces any previous edition.

The information in this document is based on the present state of our knowledge. The user must ensure the accuracy and completeness of such information in relation to the specific use intended.

Liofilchem® shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.liofilchem.net](http://www.liofilchem.net) for additional terms and conditions of sale.

Previous date: 19.09.2014

Revision date: 01.06.2015

Revision Number: rev. 5

## ENGLISH

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifiers

Product name: Ninhydrin 7% Reagent  
Product Number: 080405-080416

#### 1.2 Identified uses of the relevant substance or mixture and uses advised against

Identified uses relevant: Professional uses, Health services, scientific research and development

#### 1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Liofilchem®  
Address: Via Scozia, zona industriale, 64026 - Roseto degli Abruzzi (TE)  
Telephone number: 085/8930745  
Fax number: 085/8930330  
E-mail address: liofilchem@liofilchem.net

#### 1.4 Emergency telephone number

+39 02-66101029 (Centro Antiveneni Niguarda Cà Granda - Milano).

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

##### Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Flam. Liq. 3, Flammable liquids (Category 3); H226  
Acute Tox. 4, Acute toxicity, Oral (Category 4); H302  
Acute Tox. 4, Acute toxicity, Dermal (Category 4); H312  
Acute Tox. 4, Acute toxicity, Inhalation (Category 4); H332  
Repr. 1B, Reproductive toxicity (Category 1B); H360FD

#### 2.2 Label elements

##### Labelling according Regulation (EC) No 1272/2008 [CLP]

#### Pictogram



#### Signal word

Danger

#### Hazard statement(s)

H226 Flammable liquid and vapour.  
H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.  
H360FD May damage fertility. May damage the unborn child.

#### Precautionary statement(s)

P201 Obtain special instructions before use.  
P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.  
P243 Take precautionary measures against static discharge.  
P280 Wear protective gloves/protective clothing.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.

**Supplemental Hazard Statements** none

#### 2.3 Other hazards - none

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

##### Hazardous substances

CAS n°	EC n°	Index n°	Registration number REACH	Concentration	Classification according Regulation (EC) No 1272/2008
<b>2 - Methoxyethanol</b>					
109-86-4	203-713-7	603-011-00-4	01-2119494721-33-XXXX	<= 100 %	Flam. Liq. 3; Acute Tox. 4; Repr. 1B; H226, H302 + H312 + H332, H360FD
<b>Ninhydrin</b>					
485-47-2	207-618-1	-	-	7.0%	Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H302, H315, H319, H335

#### Additional Information:

For the full text of H codes and R phrases mentioned in this section, see section 16

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

no data available

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

no data available

## 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### 5.2 Special hazards arising from the substance or mixture

Oxides of Carbon.

### 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Remove all sources of ignition. Ensure adequate ventilation.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided

### 6.3 Metodi e materiali per il contenimento e per la bonifica

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For information on safe handling, see Chapter 7.

For information on personal protection equipment see Chapter 8.

For disposal information see Chapter 13.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Do not eat or drink in work areas, wash hands after use; and remove contaminated clothing and protective equipment before entering areas where you eat.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature, see the product label.

### 7.3 Specific end uses

Apart from the uses described in section 1.2 are not covered other specific uses.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Components with workplace control parameters

2-Methoxyethanol: 109-86-4

TWA 1 ppm

## 8.2 Exposure controls

### Exposure controls

Handle in accordance with good hygiene and safety practice. Wash hands before breaks and at the end of workday.

### Personal protective equipment

Eyes/Face Protection: It is advisable wear safety goggles

Skin protection: Handle with gloves

Body Protection: Use protective clothes in accordance with laboratory good practices.

Respiratory protection: It is advisable wear dust mask.

### Environmental exposure control

For information relating to environmental precautions, see chapter 6.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

#### Appearance

Form Liquid  
Color Yellow

#### Odour

No data available

#### Odour Threshold

No data available

#### pH

No data available

#### Melting point/ freezing point

No data available

#### Initial boiling point and boiling range

> 35°C

#### Flash point

> 23°C - < 60°C

#### Evaporation rate

No data available

#### Flammability (solid, gas)

No data available

#### Upper / lower flammability or explosive limits

No data available

#### Vapour pressure

No data available

#### Vapour density

No data available

#### Relative density

No data available

#### Water solubility

Soluble

#### Partition coefficient: n-octanol/water

No data available

#### Autoignition temperature

No data available

#### Decomposition temperature

No data available

#### Viscosity

No data available

#### Explosive properties

No data available

#### Oxidizing properties

No data available

### 9.2 Other safety information

no data available

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

Stable under recommended storage conditions

### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

Heat, flames and sparks.

### 10.5 Incompatible materials

Aluminum, Magnesium, Alkalis, Strong oxidizing agents.

### 10.6 Hazardous decomposition products

No decomposition when used for the intended uses.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

**Acute toxicity:** 300 mg/kg < STAmix (Oral) < 2000 mg/kg  
1000 mg/kg < STAmix (Dermal) < 2000 mg/kg  
10 mg/l < STAmix (Inal.) < 20 mg/l

**Skin corrosion/irritation:** no data available

**Serious eye damage/eye irritation:** Methoxyethanol effects are: Skin - rabbit - Mild eye irritation - 24 h

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:** no data available

**Carcinogenicity:** IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity:**

Methoxyethanol effects are: May cause congenital malformation in the fetus. Presumed human reproductive toxicant. May cause reproductive disorders.

**Specific target organ toxicity - single exposure:** no data available

**Specific target organ toxicity - repeated exposure:** no data available

**Aspiration hazard:** no data available

**Additional information:** RTECS: no data available

## 12. ECOLOGICAL INFORMATION

**12.1 Toxicity**

no data available

**12.2 Persistence and degradability**

no data available

**12.3 Bioaccumulative potential**

no data available

**12.4 Mobility in soil**

no data available

**12.5 Results of PBT and vPvB assessment**

This mixture contains no substances evaluated PBT or vPvB

**12.6 Other adverse effects**

no data available

## 13. DISPOSAL CONSIDERATIONS

**13.1 Waste treatment methods**

**Product**

Not be disposed of with household waste. Do not discharge into sewers.

The product must be specially treated adhering to official regulations administrative. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

## 14. INFORMAZIONI SUL TRASPORTO

**14.1 UN number**

ADR/RID: UN 1188                      IMDG: UN 1188                      IATA: UN 1188

**14.2 UN proper shipping name**

ADR/RID: ETHYLENE GLYCOL MONOMETHYL ETHER

IMDG: ETHYLENE GLYCOL MONOMETHYL ETHER

IATA: ETHYLENE GLYCOL MONOMETHYL ETHER

**14.3 Transport hazard class(es)**

ADR/RID: 3                                      IMDG: 3                                      IATA: 3

**14.4 Packaging group**

ADR/RID: III                                      IMDG: III                                      IATA: III

**14.5 Environmental hazards**

ADR/RID: yes                                      IMDG: yes                                      IATA: no

**14.6 Special precautions for user**

no data available

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

no data available

## 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of European Parliament and of the Council Regulation (EC) No. 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) and Commission Regulation (EU) No. 453/2010 amending Commission Regulation (EC) No. 1907/2006.

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

The product is classified, coded and labeled in accordance with EU Regulation on Hazardous Materials.

### 15.2 Chemical Safety Assessment

This product has not been made a chemical safety assessment.

## 16. OTHER INFORMATION

### Text of H code(s) and R-phrases mentioned in Section 3

Skin Irrit. 2 Skin irritation (Category 2)

Eye Irrit. 2 Eye irritation (Category 2)

STOT SE 3 Specific target organ toxicity-single exposure (Category 3)

H315 Causes skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

### Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CLP: Regulation concerning the classification, labelling and packaging of substances and mixtures, Regulation (EC) No. 1272/2008.

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IATA: International Air Transport Association

IMDG: International Maritime Code for Dangerous Goods

CL50: Middle lethal concentration of individuals in essay

DL50: The median lethal dose that causes death in 50% of individuals in essay

PBT: Persistent, bioaccumulative and toxic substance

REACH: Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), Regulation (EC) No. 1907/2006

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail

vPvB: Very persistent and very bioaccumulative substance

### Training advice

The product must be used by qualified personnel. It is recommended to provide basic training with regard to safety and health at work to ensure proper handling of the product.

### Further information

This sheet replaces any previous edition.

The information in this document is based on the present state of our knowledge. The user must ensure the accuracy and completeness of such information in relation to the specific use intended.

Liofilchem® shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.liofilchem.net](http://www.liofilchem.net) for additional terms and conditions of sale.

Previous date: 03.12.2012

Revision date: 01.06.2015

Revision Number: rev. 3

## ENGLISH

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifiers

Product name: Methyl Red Reagent

Product Number: 080412

#### 1.2 Identified uses of the relevant substance or mixture and uses advised against

Identified uses relevant: Professional uses, Health services, scientific research and development

#### 1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Liofilchem®

Address: Via Scozia, zona industriale, 64026 - Roseto degli Abruzzi (TE)

Telephone number: 085/8930745

Fax number: 085/8930330

E-mail address: liofilchem@liofilchem.net

#### 1.4 Emergency telephone number

+39 02-66101029 (Centro Antiveneni Niguarda Cà Granda - Milano).

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Flam. Liq. 2, Flammable liquids (Category 2); H225

#### 2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

#### Pictogram



#### Signal word

Danger

#### Hazard statement(s)

H225 Highly flammable liquid and vapour.

#### Precautionary statement(s)

P210 Tenere lontano da fonti di calore, superfici riscaldate, scintille, fiamme e altre fonti di innesco. Vietato fumare.

P243 Take precautionary measures against static discharge.

**Supplemental Hazard Statements** none

#### 2.3 Other hazards - none

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

#### Hazardous substances

CAS n°	EC n°	Index n°	Registration number REACH	Concentration	Classification according Regulation (EC) No 1272/2008
<b>Ethyl alcol</b>					
64-17-5	200-578-6	603-002-00-5	-	60.0 %	Flam. Liq. 2; H225

#### Additional Information:

For the full text of H codes and R phrases mentioned in this section, see section 16

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Wash with plenty of soap and water. Consult a physician.

**In case of eye contact:** Rinse immediately with plenty of water for at least 15 minutes and consult a physician.

**If swallowed:** Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

no data available

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

no data available

### 5. FIRE-FIGHTING MEASURES

#### 5.1 Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### 5.2 Special hazards arising from the substance or mixture

Carbon oxides.

#### 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

### 6. ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Remove all sources of ignition. Ensure adequate ventilation.

#### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided

#### 6.3 Metodi e materiali per il contenimento e per la bonifica

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

#### 6.4 Reference to other sections

For information on safe handling, see Chapter 7.

For information on personal protection equipment see Chapter 8.

For disposal information see Chapter 13.

### 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Do not eat or drink in work areas, wash hands after use; and remove contaminated clothing and protective equipment before entering areas where you eat.

#### 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature, see the product label.

#### 7.3 Specific end uses

Apart from the uses described in section 1.2 are not covered other specific uses.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

##### Components with workplace control parameters

Contains no substances with occupational exposure limit value.

#### 8.2 Exposure controls

##### Exposure controls

Handle in accordance with good hygiene and safety practice. Wash hands before breaks and at the end of workday.

##### Personal protective equipment

Eyes/Face Protection: It is advisable wear safety goggles

Skin protection: Handle with gloves

Body Protection: Use protective clothes in accordance with laboratory good practices.

Respiratory protection: It is advisable wear dust mask.



**Aspiration hazard:** no data available

**Additional information:** RTECS: no data available

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

no data available

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

no data available

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

This mixture contains no substances evaluated PBT or vPvB

### 12.6 Other adverse effects

no data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

Not be disposed of with household waste. Do not discharge into sewers.

The product must be specially treated adhering to official regulations administrative. Offer surplus and non-recyclable solutions to a licensed disposal company.

#### Contaminated packaging

Dispose of as unused product.

## 14. INFORMAZIONI SUL TRASPORTO

### 14.1 UN number

ADR/RID: UN 1170                      IMDG: UN 1170                      IATA: UN 1170

### 14.2 UN proper shipping name

ADR/RID: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

IMDG: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

IATA: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

### 14.3 Transport hazard class(es)

ADR/RID: 3                                      IMDG: 3                                      IATA: 3

### 14.4 Packaging group

ADR/RID: II                                      IMDG: II                                      IATA: II

### 14.5 Environmental hazards

ADR/RID: no                                      IMDG: no                                      IATA: no

### 14.6 Special precautions for user

no data available

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

## 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of European Parliament and of the Council Regulation (EC) No. 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) and Commission Regulation (EU) No. 453/2010 amending Commission Regulation (EC) No. 1907/2006.

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

The product is classified, coded and labeled in accordance with EU Regulation on Hazardous Materials.

### 15.2 Chemical Safety Assessment

This product has not been made a chemical safety assessment.

## 16. OTHER INFORMATION

### Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CLP: Regulation concerning the classification, labelling and packaging of substances and mixtures, Regulation (EC) No. 1272/2008.

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IATA: International Air Transport Association

IMDG: International Maritime Code for Dangerous Goods

CL50: Middle lethal concentration of individuals in essay

DL50: The median lethal dose that causes death in 50% of individuals in essay

PBT: Persistent, bioaccumulative and toxic substance

REACH: Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), Regulation (EC) No. 1907/2006

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail

vPvB: Very persistent and very bioaccumulative substance

### Training advice

The product must be used by qualified personnel. It is recommended to provide basic training with regard to safety and health at work to ensure proper handling of the product.

### Further information

This sheet replaces any previous edition.

The information in this document is based on the present state of our knowledge. The user must ensure the accuracy and completeness of such information in relation to the specific use intended.

Liofilchem® shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.liofilchem.net](http://www.liofilchem.net) for additional terms and conditions of sale.

Previous date: 16.12.2012

Revision date: 01.06.2015

Revision Number: rev. 4

## ENGLISH

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifiers

Product name: Alpha Naphthylamine Reagent  
Product Number: 080410-080417

#### 1.2 Identified uses of the relevant substance or mixture and uses advised against

Identified uses relevant: Professional uses, Health services, scientific research and development

#### 1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Liofilchem®  
Address: Via Scozia, zona industriale, 64026 - Roseto degli Abruzzi (TE)  
Telephone number: 085/8930745  
Fax number: 085/8930330  
E-mail address: liofilchem@liofilchem.net

#### 1.4 Emergency telephone number

+39 02-66101029 (Centro Antiveneni Niguarda Cà Granda - Milano).

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]**

Flam. Liq. 3, Flammable liquids (Category 3); H226  
Skin Corr. 1A, Skin corrosion (Category 1A); H314

#### 2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

#### Pictogram



#### Signal word

Danger

#### Hazard statement(s)

H226 Flammable liquid and vapour.  
H314 Causes severe skin burns and eye damage.

#### Consigli di prudenza

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.  
P243 Take precautionary measures against static discharge.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
P363 Wash contaminated clothing before reuse.  
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 or doctor/physician.

**Descrizioni supplementari del rischio** nessuno(a)

#### 2.3 Other hazards - none

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

#### Hazardous substances

CAS n°	EC n°	Index n°	Registration number REACH	Concentration	Classification according Regulation (EC) No 1272/2008
<b>Acetic acid</b>					
7681-11-0	200-580-7	607-002-00-6	-	30.0 %	Flam. Liq. 3; Skin Corr. 1A; H226, H314
<b>1-Naphthol</b>					
90-15-3	201-969-4	604-029-00-5	-	0.2%	Acute Tox. 4; Acute Tox. 3; Skin Irrit. 2; Eye Dam. 1; STOT SE 3; Aquatic Chronic 2; H302, H311, H315, H318, H335, H411

**Additional Information:**

For the full text of H codes and R phrases mentioned in this section, see section 16

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Consult a physician.

**In case of eye contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

**If swallowed:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

no data available

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

no data available

## 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### 5.2 Special hazards arising from the substance or mixture

Carbon oxides.

### 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Remove all sources of ignition. Ensure adequate ventilation.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided

### 6.3 Metodi e materiali per il contenimento e per la bonifica

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For information on safe handling, see Chapter 7.

For information on personal protection equipment see Chapter 8.

For disposal information see Chapter 13.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Do not eat or drink in work areas, wash hands after use; and remove contaminated clothing and protective equipment before entering areas where you eat.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature, see the product label.

### 7.3 Specific end uses

Apart from the uses described in section 1.2 are not covered other specific uses.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Components with workplace control parameters

Acetic Acid: 64-19-7

TWA                      10 ppm  
                              25 mg/m<sup>3</sup>

## 8.2 Exposure controls

### Exposure controls

Handle in accordance with good hygiene and safety practice. Wash hands before breaks and at the end of workday.

### Personal protective equipment

Eyes/Face Protection: It is advisable wear safety goggles

Skin protection: Handle with gloves

Body Protection: Use protective clothes in accordance with laboratory good practices.

Respiratory protection: It is advisable wear dust mask.

### Environmental exposure control

For information relating to environmental precautions, see chapter 6.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

#### Appearance

Form                                      Liquid  
Color                                      Colourless

#### Odour

No data available

#### Odour Threshold

No data available

#### pH

No data available

#### Melting point/ freezing point

No data available

#### Initial boiling point and boiling range

> 35°C

#### Flash point

> 23°C - < 60°C

#### Evaporation rate

No data available

#### Flammability (solid, gas)

No data available

#### Upper / lower flammability or explosive limits

No data available

#### Vapour pressure

No data available

#### Vapour density

No data available

#### Relative density

No data available

#### Water solubility

No data available

#### Partition coefficient: n-octanol/water

No data available

#### Autoignition temperature

No data available

#### Decomposition temperature

No data available

#### Viscosity

No data available

#### Explosive properties

No data available

#### Oxidizing properties

No data available

### 9.2 Other safety information

no data available

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

Stable under recommended storage conditions

### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

### 10.5 Incompatible materials

Strong oxidizing agents

### 10.6 Hazardous decomposition products

No decomposition when used for the intended uses.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

**Acute toxicity:** 1-Naphthol effects are: LD50 Oral-Rat-1.870 mg/kg  
LD50 Dermal -Rabbit-880 mg/kg

**Skin corrosion/irritation:** 1-Naphthol effects are: Skin - rabbit - Severe skin irritation - 24 h

**Serious eye damage/eye irritation:**

Acetic acid effects are: Eyes – Rabbit - Corrosive to eyes  
1-Naphthol effects are: Eyes - rabbit - Severe eye irritation

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:** no data available

**Carcinogenicity:** IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen by IARC or expected.

**Reproductive toxicity:** no data available

**Specific target organ toxicity - single exposure:** 1-Naphthol effects are: May cause respiratory irritation

**Specific target organ toxicity - repeated exposure:** no data available

**Aspiration hazard:** no data available

**Additional information:** RTECS: no data available

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

1-Naphthol effects are: Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 4,1 - 4,7 mg/l - 96 h

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

no data available

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

This mixture contains no substances evaluated PBT or vPvB

### 12.6 Other adverse effects

no data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

**Product**

Not be disposed of with household waste. Do not discharge into sewers.  
The product must be specially treated adhering to official regulations administrative. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

## 14. INFORMAZIONI SUL TRASPORTO

### 14.1 UN number

ADR/RID: UN 2790                      IMDG: UN 2790                      IATA: UN 2790

### 14.2 UN proper shipping name

ADR/RID: ACETIC ACID SOLUTION  
IMDG: ACETIC ACID SOLUTION  
IATA: ACETIC ACID SOLUTION

### 14.3 Transport hazard class(es)

ADR/RID: 8                                  IMDG: 8    IATA: 8

### 14.4 Packaging group

ADR/RID: III                                IMDG: III                                        IATA: III

### 14.5 Environmental hazards

ADR/RID: no                                IMDG: no                                        IATA: no

### 14.6 Special precautions for user

no data available

## 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

## 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of European Parliament and of the Council Regulation (EC) No. 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) and Commission Regulation (EU) No. 453/2010 amending Commission Regulation (EC) No. 1907/2006.

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

The product is classified, coded and labeled in accordance with EU Regulation on Hazardous Materials.

### 15.2 Chemical Safety Assessment

This product has not been made a chemical safety assessment.

## 16. OTHER INFORMATION

### Text of H code(s) and R-phrases mentioned in Section 3

Acute Tox. 4 Acute toxicity (Category 4)

Acute Tox. 3 Acute toxicity (Category 3)

Eye Dam. 1 Serious eye damage (Category 1)

Skin Irrit. 2 Irritazione cutanea (Categoria 2)

STOT SE 3 Specific target organ toxicity - single exposure (Category 3)

Aquatic Chronic 2 Chronic toxicity to the aquatic environment (Category 2)

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

H411 Toxic to aquatic life with long lasting effects.

### Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CLP: Regulation concerning the classification, labelling and packaging of substances and mixtures, Regulation (EC) No. 1272/2008.

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IATA: International Air Transport Association

IMDG: International Maritime Code for Dangerous Goods

CL50: Middle lethal concentration of individuals in essay

DL50: The median lethal dose that causes death in 50% of individuals in essay

PBT: Persistent, bioaccumulative and toxic substance

REACH: Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), Regulation (EC) No. 1907/2006

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail

vPvB: Very persistent and very bioaccumulative substance

### Training advice

The product must be used by qualified personnel. It is recommended to provide basic training with regard to safety and health at work to ensure proper handling of the product.

### Further information

This sheet replaces any previous edition.

The information in this document is based on the present state of our knowledge. The user must ensure the accuracy and completeness of such information in relation to the specific use intended.

Liofilchem® shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.liofilchem.net](http://www.liofilchem.net) for additional terms and conditions of sale.

Previous date: 16.12.2012

Revision date: 01.06.2015

Revision Number: rev. 5

## ENGLISH

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifiers

Product name: H<sub>2</sub>O<sub>2</sub> Reagent

Product Number: 080414-080419-\$87008

#### 1.2 Identified uses of the relevant substance or mixture and uses advised against

Identified uses relevant: Professional uses, Health services, scientific research and development

#### 1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Liofilchem®

Address: Via Scozia, zona industriale, 64026 - Roseto degli Abruzzi (TE)

Telephone number: 085/8930745

Fax number: 085/8930330

E-mail address: liofilchem@liofilchem.net

#### 1.4 Emergency telephone number

+39 02-66101029 (Centro Antiveneni Niguarda Cà Granda - Milano).

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Skin Corr. 1A, Skin corrosion (Category 1A); H314

#### 2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

#### Pictogram



#### Signal word

Danger

#### Hazard statement(s)

H314 Causes severe skin burns and eye damage.

#### Precautionary statement(s)

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

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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

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 or doctor/physician.

**Supplemental Hazard Statements** none

#### 2.3 Other hazards - none

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

#### Hazardous substances

CAS n°	EC n°	Index n°	Registration number REACH	Concentration	Classification according Regulation (EC) No 1272/2008
<b>Hydrogen peroxide</b>					
7722-84-1	231-765-0	008-003-00-9	-	7.5%	Ox. Liq. 1; Acute Tox. 4; Skin Corr. 1A; H271, H302 + H332, H314

#### Additional Information:

For the full text of H codes and R phrases mentioned in this section, see section 16

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Consult a physician.

**In case of eye contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a physician.

**If swallowed:** Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.

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

no data available

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

no data available

### **5. FIRE-FIGHTING MEASURES**

#### **5.1 Extinguishing media**

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### **5.2 Special hazards arising from the substance or mixture**

no data available

#### **5.3 Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

### **6. ACCIDENTAL RELEASE MEASURES**

#### **6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing vapours, mist or gas.. Ensure adequate ventilation.

#### **6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided

#### **6.3 Metodi e materiali per il contenimento e per la bonifica**

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

#### **6.4 Reference to other sections**

For information on safe handling, see Chapter 7.

For information on personal protection equipment see Chapter 8.

For disposal information see Chapter 13.

### **7. HANDLING AND STORAGE**

#### **7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Do not eat or drink in work areas, wash hands after use; and remove contaminated clothing and protective equipment before entering areas where you eat.

#### **7.2 Conditions for safe storage, including any incompatibilities**

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature, see the product label.

#### **7.3 Specific end uses**

Apart from the uses described in section 1.2 are not covered other specific uses.

### **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### **8.1 Control parameters**

##### **Components with workplace control parameters**

Contains no substances with occupational exposure limit value.

#### **8.2 Exposure controls**

##### **Exposure controls**

Handle in accordance with good hygiene and safety practice. Wash hands before breaks and at the end of workday.

##### **Personal protective equipment**

Eyes/Face Protection: It is advisable wear safety goggles

Skin protection: Handle with gloves

Body Protection: Use protective clothes in accordance with laboratory good practices.

Respiratory protection: It is advisable wear dust mask.

## Environmental exposure control

For information relating to environmental precautions, see chapter 6.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

#### Appearance

Form Liquid  
Color Colourless

#### Odour

No data available

#### Odour Threshold

No data available

#### pH

No data available

#### Melting point/ freezing point

No data available

#### Initial boiling point and boiling range

No data available

#### Flash point

No data available

#### Evaporation rate

No data available

#### Flammability (solid, gas)

No data available

#### Upper / lower flammability or explosive limits

No data available

#### Vapour pressure

No data available

#### Vapour density

No data available

#### Relative density

No data available

#### Water solubility

No data available

#### Partition coefficient: n-octanol/water

No data available

#### Autoignition temperature

No data available

#### Decomposition temperature

No data available

#### Viscosity

No data available

#### Explosive properties

No data available

#### Oxidizing properties

No data available

### 9.2 Other safety information

no data available

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

Stable under recommended storage conditions

### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

Exposure to direct solar light.

### 10.5 Incompatible materials

Zinc, Powdered metals, Iron, Copper, Nickel, Brass, Iron and iron salts.

### 10.6 Hazardous decomposition products

No decomposition when used for the intended uses.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity:

Hydrogen peroxide effects are: LD50 Oral – Rat - 376 mg/kg  
LD50 Dermal – Rat - 4.060 mg/kg

**Skin corrosion/irritation:** no data available

**Serious eye damage/eye irritation:** no data available

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:** no data available

**Carcinogenicity:** This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification. (Hydrogen peroxide)

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Hydrogen peroxide)

**Reproductive toxicity:** no data available



## 16. OTHER INFORMATION

### Text of R-phrases mentioned in Section 3

Ox. Liq. 1 Oxidizing liquid (Category 1)

Acute Tox. 4 Acute Toxicity (Category 4)

H271 May cause fire or explosion; strong oxidiser

H302 + H332 Harmful if swallowed or inhaled

### Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CLP: Regulation concerning the classification, labelling and packaging of substances and mixtures, Regulation (EC) No. 1272/2008.

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IATA: International Air Transport Association

IMDG: International Maritime Code for Dangerous Goods

CL50: Middle lethal concentration of individuals in essay

DL50: The median lethal dose that causes death in 50% of individuals in essay

PBT: Persistent, bioaccumulative and toxic substance

REACH: Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), Regulation (EC) No. 1907/2006

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail

vPvB: Very persistent and very bioaccumulative substance

### Training advice

The product must be used by qualified personnel. It is recommended to provide basic training with regard to safety and health at work to ensure proper handling of the product.

### Further information

This sheet replaces any previous edition.

The information in this document is based on the present state of our knowledge. The user must ensure the accuracy and completeness of such information in relation to the specific use intended.

Liofilchem® shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.liofilchem.net](http://www.liofilchem.net) for additional terms and conditions of sale.

Previous date: 22.10.2014

Revision date: 01.06.2015

Revision Number: rev. 6

## ENGLISH

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifiers

Product name: NaOH 40% Reagent

Product Number: 080402

#### 1.2 Identified uses of the relevant substance or mixture and uses advised against

Identified uses relevant: Professional uses, Health services, scientific research and development

#### 1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Liofilchem®

Address: Via Scozia, zona industriale, 64026 - Roseto degli Abruzzi (TE)

Telephone number: 085/8930745

Fax number: 085/8930330

E-mail address: liofilchem@liofilchem.net

#### 1.4 Emergency telephone number

+39 02-66101029 (Centro Antiveneni Niguarda Cà Granda - Milano).

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Skin Corr. 1A, Skin corrosion (Category 1A); H314

#### 2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

#### Pictogram



#### Signal word

Danger

#### Hazard statement(s)

H314 Causes severe skin burns and eye damage.

#### Precautionary statement(s)

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

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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

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 or doctor/physician.

**Supplemental Hazard Statements** none

#### 2.3 Other hazards - none

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

#### Hazardous substances

CAS n°	EC n°	Index n°	Registration number REACH	Concentration	Classification according Regulation (EC) No 1272/2008
<b>Sodium Hydroxide</b>					
1310-73-2	215-185-5	011-002-00-6	-	40.0 %	Skin Corr. 1A; H314

#### Additional Information:

For the full text of H codes and R phrases mentioned in this section, see section 16

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Consult a physician.

**In case of eye contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a physician.

**If swallowed:** Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.

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

no data available

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

no data available

### 5. FIRE-FIGHTING MEASURES

#### 5.1 Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### 5.2 Special hazards arising from the substance or mixture

no data available

#### 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

### 6. ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas.. Ensure adequate ventilation.

#### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided

#### 6.3 Metodi e materiali per il contenimento e per la bonifica

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

#### 6.4 Reference to other sections

For information on safe handling, see Chapter 7.

For information on personal protection equipment see Chapter 8.

For disposal information see Chapter 13.

### 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Do not eat, drink or smoking in work areas, wash hands after use; and remove contaminated clothing and protective equipment before entering areas where you eat.

#### 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature, see the product label.

#### 7.3 Specific end uses

Apart from the uses described in section 1.2 are not covered other specific uses.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

##### Components with workplace control parameters

Sodium Hydroxide: 1310-73-2

TWA (Italy)

Short-term value: C 2 mg/m<sup>3</sup>

#### 8.2 Exposure controls

##### Exposure controls

Handle in accordance with good hygiene and safety practice. Wash hands before breaks and at the end of workday.

##### Personal protective equipment

Eyes/Face Protection: It is advisable wear safety goggles

Skin protection: Handle with gloves

Body Protection: Use protective clothes in accordance with laboratory good practices.

Respiratory protection: It is advisable wear dust mask.

## Environmental exposure control

For information relating to environmental precautions, see chapter 6.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

#### Appearance

Form Liquid  
Color Colourless

#### Odour

No data available

#### Odour Threshold

No data available

#### pH

No data available

#### Melting point/ freezing point

No data available

#### Initial boiling point and boiling range

No data available

#### Flash point

No data available

#### Evaporation rate

No data available

#### Flammability (solid, gas)

No data available

#### Upper / lower flammability or explosive limits

No data available

#### Vapour pressure

No data available

#### Vapour density

No data available

#### Relative density

No data available

#### Water solubility

No data available

#### Partition coefficient: n-octanol/water

No data available

#### Autoignition temperature

No data available

#### Decomposition temperature

No data available

#### Viscosity

No data available

#### Explosive properties

No data available

#### Oxidizing properties

No data available

### 9.2 Other safety information

no data available

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

Stable under recommended storage conditions

### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

no data available

### 10.5 Incompatible materials

Strong oxidizing agents, Strong acids, Organic materials.

### 10.6 Hazardous decomposition products

No decomposition when used for the intended uses.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

**Acute toxicity:** no data available

**Skin corrosion/irritation:** Sodium Hydroxide effects are: Skin – rabbit - Causes severe burns-24 h

**Serious eye damage/eye irritation:** Sodium Hydroxide effects are: Eyes – rabbit - Corrosive-24 h

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:** no data available

**Carcinogenicity:** IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity:** no data available

**Specific target organ toxicity - single exposure:** no data available

**Specific target organ toxicity - repeated exposure:** no data available

**Aspiration hazard:** no data available

**Additional information:** RTECS: no data available

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

no data available

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

no data available

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

This mixture contains no substances evaluated PBT or vPvB

### 12.6 Other adverse effects

no data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

Not be disposed of with household waste. Do not discharge into sewers.

The product must be specially treated adhering to official regulations administrative. Offer surplus and non-recyclable solutions to a licensed disposal company.

#### Contaminated packaging

Dispose of as unused product.

## 14. INFORMAZIONI SUL TRASPORTO

### 14.1 UN number

ADR/RID: UN 1824                      IMDG: UN 1824                      IATA: UN 1824

### 14.2 UN proper shipping name

ADR/RID: SODIUM HYDROXIDE SOLUTION

IMDG: SODIUM HYDROXIDE SOLUTION

IATA: SODIUM HYDROXIDE SOLUTION

### 14.3 Transport hazard class(es)

ADR/RID: 8                                      IMDG: 8                                      IATA: 8

### 14.4 Packaging group

ADR/RID: II                                      IMDG: II                                      IATA: II

### 14.5 Environmental hazards

ADR/RID: no                                      IMDG: no                                      IATA: no

### 14.6 Special precautions for user

no data available

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

## 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of European Parliament and of the Council Regulation (EC) No. 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) and Commission Regulation (EU) No. 453/2010 amending Commission Regulation (EC) No. 1907/2006.

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

The product is classified, coded and labeled in accordance with EU Regulation on Hazardous Materials.

### 15.2 Chemical Safety Assessment

This product has not been made a chemical safety assessment.

## 16. OTHER INFORMATION

### Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CLP: Regulation concerning the classification, labelling and packaging of substances and mixtures, Regulation (EC) No. 1272/2008.

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IATA: International Air Transport Association

IMDG: International Maritime Code for Dangerous Goods

CL50: Middle lethal concentration of individuals in essay

DL50: The median lethal dose that causes death in 50% of individuals in essay

PBT: Persistent, bioaccumulative and toxic substance

REACH: Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), Regulation (EC) No. 1907/2006

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail

vPvB: Very persistent and very bioaccumulative substance

### Training advice

The product must be used by qualified personnel. It is recommended to provide basic training with regard to safety and health at work to ensure proper handling of the product.

### Further information

This sheet replaces any previous edition.

The information in this document is based on the present state of our knowledge. The user must ensure the accuracy and completeness of such information in relation to the specific use intended.

Liofilchem® shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.liofilchem.net](http://www.liofilchem.net) for additional terms and conditions of sale.

Previous date: 25.05.2012

Revision date: 01.06.2015

Revision Number: rev. 4

## ENGLISH

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifiers

Product name: Sulphanilic Acid Reagent  
Product Number: 080406-080418

#### 1.2 Identified uses of the relevant substance or mixture and uses advised against

Identified uses relevant: Professional uses, Health services, scientific research and development

#### 1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Liofilchem®  
Address: Via Scozia, zona industriale, 64026 - Roseto degli Abruzzi (TE)  
Telephone number: 085/8930745  
Fax number: 085/8930330  
E-mail address: liofilchem@liofilchem.net

#### 1.4 Emergency telephone number

+39 02-66101029 (Centro Antiveneni Niguarda Cà Granda - Milano).

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]**

Flam. Liq. 3, Flammable liquids (Category 3); H226  
Skin Corr. 1A, Skin corrosion (Category 1A); H314

#### 2.2 Label elements

**Labelling according Regulation (EC) No 1272/2008 [CLP]**

#### Pictogram



#### Signal word

Danger

#### Hazard statement(s)

H226 Flammable liquid and vapour.  
H314 Causes severe skin burns and eye damage.

#### Consigli di prudenza

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.  
P243 Take precautionary measures against static discharge.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
P363 Wash contaminated clothing before reuse.  
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 or doctor/physician.

**Descrizioni supplementari del rischio** nessuno(a)

#### 2.3 Other hazards - none

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

#### Hazardous substances

CAS n°	EC n°	Index n°	Registration number REACH	Concentration	Classification according Regulation (EC) No 1272/2008
<b>Acetic acid</b>					
7681-11-0	200-580-7	607-002-00-6	-	30.0 %	Flam. Liq. 3; Skin Corr. 1A; H226, H314
<b>Sulfanilic acid</b>					
121-57-3	204-482-5	-	-	0.8 %	Skin Irrit. 2; Eye Irrit. 2; Skin Sens. 1 ; H315, H317, H319

#### Additional Information:

For the full text of H codes and R phrases mentioned in this section, see section 16

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Consult a physician.

**In case of eye contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

**If swallowed:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

no data available

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

no data available

## 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### 5.2 Special hazards arising from the substance or mixture

Carbon oxides.

### 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Remove all sources of ignition. Ensure adequate ventilation.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided

### 6.3 Metodi e materiali per il contenimento e per la bonifica

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For information on safe handling, see Chapter 7.

For information on personal protection equipment see Chapter 8.

For disposal information see Chapter 13.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Do not eat or drink in work areas, wash hands after use; and remove contaminated clothing and protective equipment before entering areas where you eat.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature, see the product label.

### 7.3 Specific end uses

Apart from the uses described in section 1.2 are not covered other specific uses.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Components with workplace control parameters

Acetic Acid: 64-19-7

TWA                      10 ppm  
                                 25 mg/m<sup>3</sup>

## 8.2 Exposure controls

### Exposure controls

Handle in accordance with good hygiene and safety practice. Wash hands before breaks and at the end of workday.

### Personal protective equipment

Eyes/Face Protection: It is advisable wear safety goggles

Skin protection: Handle with gloves

Body Protection: Use protective clothes in accordance with laboratory good practices.

Respiratory protection: It is advisable wear dust mask.

### Environmental exposure control

For information relating to environmental precautions, see chapter 6.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

#### Appearance

Form Liquid  
Color Colorless

#### Odour

No data available

#### Odour Threshold

No data available

#### pH

No data available

#### Melting point/ freezing point

No data available

#### Initial boiling point and boiling range

> 35°C

#### Flash point

> 23°C - < 60°C

#### Evaporation rate

No data available

#### Flammability (solid, gas)

No data available

#### Upper / lower flammability or explosive limits

No data available

#### Vapour pressure

No data available

#### Vapour density

No data available

#### Relative density

No data available

#### Water solubility

No data available

#### Partition coefficient: n-octanol/water

No data available

#### Autoignition temperature

No data available

#### Decomposition temperature

No data available

#### Viscosity

No data available

#### Explosive properties

No data available

#### Oxidizing properties

No data available

### 9.2 Other safety information

no data available

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

Stable under recommended storage conditions

### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

### 10.5 Incompatible materials

Strong oxidizing agents

### 10.6 Hazardous decomposition products

No decomposition when used for the intended uses.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

**Acute toxicity:** no data available

**Skin corrosion/irritation:** no data available

#### Serious eye damage/eye irritation:

Acetic acid effects are: Eyes – Rabbit - Corrosive to eyes

Sulfanilic acid effects are: Eyes – Rabbit - Eye irritation

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:** no data available

**Carcinogenicity:** IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen by IARC or expected.

**Reproductive toxicity:** no data available

**Specific target organ toxicity - single exposure:** no data available

**Specific target organ toxicity - repeated exposure:** no data available

**Aspiration hazard:** no data available

**Additional information:** RTECS: no data available

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

no data available

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

no data available

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

This mixture contains no substances evaluated PBT or vPvB

### 12.6 Other adverse effects

no data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

Not be disposed of with household waste. Do not discharge into sewers.

The product must be specially treated adhering to official regulations administrative. Offer surplus and non-recyclable solutions to a licensed disposal company.

#### Contaminated packaging

Dispose of as unused product.

## 14. INFORMAZIONI SUL TRASPORTO

### 14.1 UN number

ADR/RID: UN 2790                      IMDG: UN 2790                      IATA: UN 2790

### 14.2 UN proper shipping name

ADR/RID: ACETIC ACID SOLUTION

IMDG: ACETIC ACID SOLUTION

IATA: ACETIC ACID SOLUTION

### 14.3 Transport hazard class(es)

ADR/RID: 8                                      IMDG: 8                                      IATA: 8

### 14.4 Packaging group

ADR/RID: III                                      IMDG: III                                      IATA: III

### 14.5 Environmental hazards

ADR/RID: no                                      IMDG: no                                      IATA: no

### 14.6 Special precautions for user

no data available

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

## 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of European Parliament and of the Council Regulation (EC) No. 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) and Commission Regulation (EU) No. 453/2010 amending Commission Regulation (EC) No. 1907/2006.

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

The product is classified, coded and labeled in accordance with EU Regulation on Hazardous Materials.

### 15.2 Chemical Safety Assessment

This product has not been made a chemical safety assessment.

## 16. OTHER INFORMATION

### Text of H code(s) and R-phrases mentioned in Section 3

Skin Irrit. 2 Skin irritation (Category 2)

Eye Irrit. 2 Eye irritation (Category 2)

Skin Sens. 1 Skin sensitisation (Category 1)

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

### Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CLP: Regulation concerning the classification, labelling and packaging of substances and mixtures, Regulation (EC) No. 1272/2008.

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IATA: International Air Transport Association

IMDG: International Maritime Code for Dangerous Goods

CL50: Middle lethal concentration of individuals in essay

DL50: The median lethal dose that causes death in 50% of individuals in essay

PBT: Persistent, bioaccumulative and toxic substance

REACH: Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), Regulation (EC) No. 1907/2006

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail

vPvB: Very persistent and very bioaccumulative substance

### Training advice

The product must be used by qualified personnel. It is recommended to provide basic training with regard to safety and health at work to ensure proper handling of the product.

### Further information

This sheet replaces any previous edition.

The information in this document is based on the present state of our knowledge. The user must ensure the accuracy and completeness of such information in relation to the specific use intended.

Liofilchem® shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.liofilchem.net](http://www.liofilchem.net) for additional terms and conditions of sale.

Previous date: 16.12.2012

Revision date: 01.06.2015

Revision Number: rev. 5

## ENGLISH

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifiers

Product name: Alpha Naphthol Reagent  
Product Number: 080403-088035A

#### 1.2 Identified uses of the relevant substance or mixture and uses advised against

Identified uses relevant: Professional uses, Health services, scientific research and development

#### 1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Liofilchem®  
Address: Via Scozia, zona industriale, 64026 - Roseto degli Abruzzi (TE)  
Telephone number: 085/8930745  
Fax number: 085/8930330  
E-mail address: liofilchem@liofilchem.net

#### 1.4 Emergency telephone number

+39 02-66101029 (Centro Antiveneni Niguarda Cà Granda - Milano).

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]**

Flam. Liq. 2, Flammable liquids (Category 2); H225  
Eye Dam. 1, Serious eye damage (Category 1); H318  
Aquatic Chronic 3, Chronic toxicity to the aquatic environment (Category 3); H412

#### 2.2 Label elements

**Labelling according Regulation (EC) No 1272/2008 [CLP]**

##### Pictogram



##### Signal word

Danger

##### Hazard statement(s)

H225 Highly flammable liquid and vapour.  
H318 Causes serious eye damage.  
H412 Harmful to aquatic life with long lasting effects.

##### Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.  
P243 Take precautionary measures against static discharge.  
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.  
P310 Immediately call a POISON CENTER or doctor/physician.

**Supplemental Hazard Statements** none

#### 2.3 Other hazards - none

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

##### Hazardous substances

CAS n°	EC n°	Index n°	Registration number REACH	Concentration	Classification according Regulation (EC) No 1272/2008
<b>Ethyl alcol</b>					
64-17-5	200-578-6	603-002-00-5	-	<= 100%	Flam. Liq. 2; H225
<b>1-Naphthol</b>					
90-15-3	201-969-4	604-029-00-5	-	6.0%	Acute Tox. 4; Acute Tox. 3; Skin Irrit. 2; Eye Dam. 1; STOT SE 3; Aquatic Chronic 2; H302, H311, H315, H318, H335, H411

##### Additional Information:

For the full text of H codes and R phrases mentioned in this section, see section 16

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Wash with plenty of soap and water. Consult a physician.

**In case of eye contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a physician.

**If swallowed:** Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

no data available

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

no data available

## 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### 5.2 Special hazards arising from the substance or mixture

Oxides of Carbon.

### 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Remove all sources of ignition. Ensure adequate ventilation.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided

### 6.3 Metodi e materiali per il contenimento e per la bonifica

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For information on safe handling, see Chapter 7.

For information on personal protection equipment see Chapter 8.

For disposal information see Chapter 13.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Do not eat or drink in work areas, wash hands after use; and remove contaminated clothing and protective equipment before entering areas where you eat.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature, see the product label.

### 7.3 Specific end uses

Apart from the uses described in section 1.2 are not covered other specific uses.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Components with workplace control parameters

Contains no substances with occupational exposure limit value.

### 8.2 Exposure controls

#### Exposure controls

Handle in accordance with good hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

Eyes/Face Protection: It is advisable wear safety goggles

Skin protection: Handle with gloves

Body Protection: Use protective clothes in accordance with laboratory good practices.

Respiratory protection: It is advisable wear dust mask.

**Environmental exposure control**

For information relating to environmental precautions, see chapter 6.

**9. PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties****Appearance**

Form Liquid  
Color Beige

**Odour**

No data available

**Odour Threshold**

No data available

**pH**

No data available

**Melting point/ freezing point**

No data available

**Initial boiling point and boiling range**

> 35°C

**Flash point**

< 23°C

**Evaporation rate**

No data available

**Flammability (solid, gas)**

No data available

**Upper / lower flammability or explosive limits**

No data available

**Vapour pressure**

No data available

**Vapour density**

No data available

**Relative density**

No data available

**Water solubility**

soluble

**Partition coefficient: n-octanol/water**

No data available

**Autoignition temperature**

Product not selfigniting

**Decomposition temperature**

No data available

**Viscosity**

No data available

**Explosive properties**

No data available

**Oxidizing properties**

No data available

**9.2 Other safety information**

no data available

**10. STABILITY AND REACTIVITY****10.1 Reactivity**

no data available

**10.2 Chemical stability**

Stable under recommended storage conditions

**10.3 Possibility of hazardous reactions**

no data available

**10.4 Conditions to avoid**

Heat, flames and sparks.

**10.5 Incompatible materials**

Alkali metals, Oxidizing agents, Peroxides.

**10.6 Hazardous decomposition products**

No decomposition when used for the intended uses.

**11. TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects**

**Acute toxicity:** 1-Naphthol effects are: LD50 Oral-Rat-1.870 mg/kg  
LD50 Dermal -Rabbit-880 mg/kg

**Skin corrosion/irritation:** 1-Naphthol effects are: Skin - rabbit - Severe skin irritation - 24 h

**Serious eye damage/eye irritation:** 1-Naphthol effects are: Eyes - rabbit - Severe eye irritation

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:** no data available

**Carcinogenicity:** IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity:** no data available

**Specific target organ toxicity - single exposure:**

1-Naphthol effects are: May cause respiratory irritation

**Specific target organ toxicity - repeated exposure:** no data available

**Aspiration hazard:** no data available

**Additional information:** RTECS: no data available

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

1-Naphthol effects are: Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 4,1 - 4,7 mg/l - 96 h

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

no data available

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

This mixture contains no substances evaluated PBT or vPvB

### 12.6 Other adverse effects

no data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

Not be disposed of with household waste. Do not discharge into sewers.

The product must be specially treated adhering to official regulations administrative. Offer surplus and non-recyclable solutions to a licensed disposal company.

#### Contaminated packaging

Dispose of as unused product.

## 14. INFORMAZIONI SUL TRASPORTO

### 14.1 UN number

ADR/RID: UN 1170                      IMDG: UN 1170                      IATA: UN 1170

### 14.2 UN proper shipping name

ADR/RID: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

IMDG: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

IATA: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

### 14.3 Transport hazard class(es)

ADR/RID: 3                                      IMDG: 3                                      IATA: 3

### 14.4 Packaging group

ADR/RID: II                                      IMDG: II                                      IATA: II

### 14.5 Environmental hazards

ADR/RID: no                                      IMDG: no                                      IATA: no

### 14.6 Special precautions for user

no data available

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

## 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of European Parliament and of the Council Regulation (EC) No. 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) and Commission Regulation (EU) No. 453/2010 amending Commission Regulation (EC) No. 1907/2006.

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

The product is classified, coded and labeled in accordance with EU Regulation on Hazardous Materials.

### 15.2 Chemical Safety Assessment

This product has not been made a chemical safety assessment.

## 16. OTHER INFORMATION

### Text of H code(s) and R-phrases(s) mentioned in Section 3

Acute Tox. 4 Acute toxicity (Category 4)

Acute Tox. 3 Acute toxicity (Category 3)

Skin Irrit. 2 Irritazione cutanea (Categoria 2)

STOT SE 3 Specific target organ toxicity - single exposure (Category 3)

Aquatic Chronic 2 Chronic toxicity to the aquatic environment (Category 2)

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H315 Causes skin irritation.

H335 May cause respiratory irritation.

H411 Toxic to aquatic life with long lasting effects.

### Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CLP: Regulation concerning the classification, labelling and packaging of substances and mixtures, Regulation (EC) No. 1272/2008.

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IATA: International Air Transport Association

IMDG: International Maritime Code for Dangerous Goods

CL50: Middle lethal concentration of individuals in essay

DL50: The median lethal dose that causes death in 50% of individuals in essay

PBT: Persistent, bioaccumulative and toxic substance

REACH: Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), Regulation (EC) No. 1907/2006

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail

vPvB: Very persistent and very bioaccumulative substance

### Training advice

The product must be used by qualified personnel. It is recommended to provide basic training with regard to safety and health at work to ensure proper handling of the product.

### Further information

This sheet replaces any previous edition.

The information in this document is based on the present state of our knowledge. The user must ensure the accuracy and completeness of such information in relation to the specific use intended.

Liofilchem® shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.liofilchem.net](http://www.liofilchem.net) for additional terms and conditions of sale.

Previous date: 16.12.2012

Revision date: 01.06.2015

Revision Number: rev. 5

## ENGLISH

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifiers

Product name: Pyr Reagent

Product Number: 080407-080424-080422-080428

#### 1.2 Identified uses of the relevant substance or mixture and uses advised against

Identified uses relevant: Professional uses, Health services, scientific research and development

#### 1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Liofilchem®

Address: Via Scozia, zona industriale, 64026 - Roseto degli Abruzzi (TE)

Telephone number: 085/8930745

Fax number: 085/8930330

E-mail address: liofilchem@liofilchem.net

#### 1.4 Emergency telephone number

+39 02-66101029 (Centro Antiveneni Niguarda Cà Granda - Milano).

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

This product does not meet the criteria for classification in any hazard class in accordance to Regulation (EC) No. 1272/2008 concerning the classification, labelling and packaging of substances and mixtures.

#### 2.2 Label elements

The product does not need to be labeled in accordance with EC directives or respective national laws.

#### 2.3 Other hazards - none

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

##### Hazardous substances

The product does not need to be labeled in accordance with EC directives or respective national laws.

##### Additional Information:

For the full text of H codes and R phrases mentioned in this section, see section 16

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact:** Flush eyes with water as a precaution.

**If swallowed:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

no data available

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

no data available

### 5. FIRE-FIGHTING MEASURES

#### 5.1 Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### 5.2 Special hazards arising from the substance or mixture

no data available

#### 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

### 6. ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation.

## 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided

## 6.3 Metodi e materiali per il contenimento e per la bonifica

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

## 6.4 Reference to other sections

For information on safe handling, see Chapter 7.

For information on personal protection equipment see Chapter 8.

For disposal information see Chapter 13.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Do not eat, drink or smoke in work areas, wash hands after use; and remove contaminated clothing and protective equipment before entering areas where you eat.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature, see the product label.

### 7.3 Specific end uses

Apart from the uses described in section 1.2 are not covered other specific uses.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Components with workplace control parameters

Contains no substances with occupational exposure limit value.

### 8.2 Exposure controls

#### Exposure controls

Handle in accordance with good hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

Eyes/Face Protection: It is advisable wear safety goggles

Skin protection: Handle with gloves

Body Protection: Use protective clothes in accordance with laboratory good practices.

Respiratory protection: It is advisable wear dust mask.

#### Environmental exposure control

For information relating to environmental precautions, see chapter 6.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

#### Appearance

Form	Liquid
Color	Colorless

#### Odour

No data available

#### Odour Threshold

No data available

#### pH

No data available

#### Melting point/ freezing point

No data available

#### Initial boiling point and boiling range

No data available

#### Flash point

No data available

#### Evaporation rate

No data available

#### Flammability (solid, gas)

No data available

#### Upper / lower flammability or explosive limits

No data available

#### Vapour pressure

No data available

#### Vapour density

No data available

#### Relative density

No data available

#### Water solubility

No data available

#### Partition coefficient: n-octanol/water

No data available

#### Autoignition temperature

No data available

#### Decomposition temperature

No data available

#### Viscosity

No data available

#### Explosive properties

No data available

#### Oxidizing properties

No data available

### 9.2 Other safety information

no data available

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

Stable under recommended storage conditions

### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

no data available

### 10.5 Incompatible materials

Strong oxidizing agents.

### 10.6 Hazardous decomposition products

No decomposition when used for the intended uses.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

**Acute toxicity:** no data available

**Skin corrosion/irritation:** no data available

**Serious eye damage/eye irritation:** no data available

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:** no data available

**Carcinogenicity:** IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen by IARC or expected.

**Reproductive toxicity:** no data available

**Specific target organ toxicity - single exposure:** no data available

**Specific target organ toxicity - repeated exposure:** no data available

**Aspiration hazard:** no data available

**Additional information:** RTECS: no data available

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

no data available

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

no data available

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

This mixture contains no substances evaluated PBT or vPvB

### 12.6 Other adverse effects

no data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

Not be disposed of with household waste. Do not discharge into sewers.

The product must be specially treated adhering to official regulations administrative. Offer surplus and non-recyclable solutions to a licensed disposal company.

#### Contaminated packaging

Dispose of as unused product.

