# Safety data sheet according to Regulation (EC) No. 1907/2006

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

### 1.1. Product identifier.

| | |
|---|---|
| Code. | **HI38067A-0** |
| Product name. | **Silica Reagent A** |

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

| | |
|---|---|
| Intended use. | **Determination of Silica in Water Samples.** |

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

| | |
|---|---|
| Name. | **Hanna Instruments S.R.L.** |
| Full address. | **str. Hanna Nr 1** |
| District and Country. | **457260 loc. Nusfalau (Salaj)**<br>**Romania**<br>**Tel. (+40) 260607700**<br>**Fax. (+40) 260607700** |
| e-mail address of the competent person. responsible for the Safety Data Sheet. | **msds@hanna.ro** |

### 1.4. Emergency telephone number.

| | |
|---|---|
| For urgent inquiries refer to. | **Emergency Number - International: +(1)-703-527-3887 - UK, London: +(44)-870-8200418 - CHEMTREC 24 hours/365 days** |

## SECTION 2. Hazards identification.

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

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

| | | |
|---|---|---|
| Substance or mixture corrosive to metals, category 1 | H290 | May be corrosive to metals. |
| Skin corrosion, category 1A | H314 | Causes severe skin burns and eye damage. |
| Serious eye damage, category 1 | H318 | Causes serious eye damage. |

### 2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

Hazard statements:

| | |
|---|---|
| **H290** | May be corrosive to metals. |
| **H314** | Causes severe skin burns and eye damage. |

Precautionary statements:

| | |
|---|---|
| **P305+P351+P338** | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| **P280** | Wear protective gloves, protective clothing, eye protection and face protection. |
| **P303+P361+P353** | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower. |

## SECTION 2. Hazards identification. ... / >>

**P310** Immediately call a POISON CENTER or doctor.
**P391** Collect spillage.

**Contains:** SULPHURIC ACID
SODIUM HYDROGEN SULFATE MONOHYDRATE

### 2.3. Other hazards.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

## SECTION 3. Composition/information on ingredients.

### 3.1. Substances.

Information not relevant.

### 3.2. Mixtures.

**Contains:**

| **Identification.** | **x = Conc. %.** | **Classification 1272/2008 (CLP).** |
|---|---|---|
| **SULPHURIC ACID** | | |
| *CAS. 7664-93-9* | 9 ≤ x < 15 | Met. Corr. 1 H290, Skin Corr. 1A H314, Note B |
| *EC. 231-639-5* | | |
| *INDEX. 016-020-00-8* | | |
| *Reg. no. 01-2119458838-20* | | |
| **AMMONIUM HEPTAMOLYBDATE TETRAHYDRATE** | | |
| *CAS. 12054-85-2* | 5 ≤ x < 9 | |
| *EC. 234-722-4* | | |
| *INDEX.* | | |
| **SODIUM HYDROGEN SULFATE MONOHYDRATE** | | |
| *CAS. 7681-38-1* | 5 ≤ x < 9 | Eye Dam. 1 H318 |
| *EC. 231-665-7* | | |
| *INDEX. 016-046-00-X* | | |

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

## SECTION 4. First aid measures.

### 4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

Specific information on symptoms and effects caused by the product are unknown.
For symptoms and effects caused by the contained substances, see chap. 11.

SODIUM HYDROGEN SULFATE MONOHYDRATE
Irritant effects, Risk of blindness!.
AMMONIUM HEPTAMOLYBDATE TETRAHYDRATE
The following applies to ammonium salts in general: after swallowing: local irritation symptoms, nausea, vomiting, diarrhoea. Systemic effect: after the uptake of very large qantities: drop in blood pressure, collapse, CNS disorders, spasms, narcotic conditions, respiratory paralysis, haemolysis. Symptoms of an acute molybdenum(VI) intoxication: diarrhoea, anaemia (decreased haemoglobin concentration in the blood), fatigue. Toxic effect on liver and kidneys after high doses.
SULPHURIC ACID
SULPHURIC ACID 98%: Irritation and corrosion, Cough, Shortness of breath, Nausea, Vomiting, Diarrhoea, Pain, Risk of blindness.

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

Information not available.

## SECTION 5. Firefighting measures.

**5.1. Extinguishing media.**

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

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

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

SODIUM HYDROGEN SULFATE MONOHYDRATE

Not combustible. Ambient fire may liberate hazardous vapours. Fire may cause evolution of: Sulphur oxides. May not get in touch with: Water. The product reacts with water and generates heat.

AMMONIUM HEPTAMOLYBDATE TETRAHYDRATE

Not combustible. Development of hazardous combustion gases or vapours possible in the event of fire. Fire may cause evolution of: nitrogen oxides.

SULPHURIC ACID

SULPHURIC ACID 98%: Not combustible, Fire may cause evolution of Sulphur oxides.

**5.3. Advice for firefighters.**

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

## SECTION 6. Accidental release measures.

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

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

**6.2. Environmental precautions.**

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

**6.3. Methods and material for containment and cleaning up.**

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

**6.4. Reference to other sections.**

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

## SECTION 7. Handling and storage.

**7.1. Precautions for safe handling.**

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

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

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

Storage class TRGS 510 (Germany): 8A

**SECTION 7. Handling and storage.** ... / >>

**7.3. Specific end use(s).**
Information not available.

## SECTION 8. Exposure controls/personal protection.

**8.1. Control parameters.**

Regulatory References:

| | | |
|---|---|---|
| DEU | Deutschland | MAK-und BAT-Werte-Liste 2012 |
| ESP | España | INSHT - Límites de exposición profesional para agentes químicos en España 2015 |
| FRA | France | JORF n°0109 du 10 mai 2012 page 8773 texte n° 102 |
| GBR | United Kingdom | EH40/2005 Workplace exposure limits |
| HUN | Magyarország | 50/2011. (XII. 22.) NGM rendelet a munkahelyek kémiai biztonságáról |
| ITA | Italia | Decreto Legislativo 9 Aprile 2008, n.81 |
| NLD | Nederland | Databank of the social and Economic Concil of Netherlands (SER) Values, AF 2011:18 |
| ROU | România | Monitorul Oficial al României 44; 2012-01-19 |
| EU | OEL EU | Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. |
| | TLV-ACGIH | ACGIH 2016 |

**SULPHURIC ACID**

**Threshold Limit Value.**

| Type | Country | TWA/8h | | STEL/15min | | |
|---|---|---|---|---|---|---|
| | | mg/m3 | ppm | mg/m3 | ppm | |
| AGW | DEU | 0,1 | | 0,1 | | INHAL. |
| MAK | DEU | 0,1 | | 0,1 | | INHAL. |
| VLA | ESP | 0,05 | | | | |
| VLEP | FRA | 0,05 | | 3 | | THORA. |
| WEL | GBR | 0,05 | | | | THORA. |
| AK | HUN | 1 | | 1 | | |
| VLEP | ITA | 0,05 | | | | THORA. |
| OEL | NLD | 0,05 | | | | THORA. |
| TLV | ROU | 0,5 | | 1 | | |
| OEL | EU | 0,05 | | | | |
| TLV-ACGIH | | 0,2 | | | | |

**Predicted no-effect concentration - PNEC.**

| | | |
|---|---|---|
| Normal value in fresh water | 0,0025 | mg/l |
| Normal value in marine water | 0,00025 | mg/l |
| Normal value for fresh water sediment | 0,002 | mg/kg |
| Normal value for marine water sediment | 0,002 | mg/kg |
| Normal value of STP microorganisms | 8,8 | mg/l |

**Health - Derived no-effect level - DNEL / DMEL**

| | Effects on consumers. | | | | Effects on workers | | | |
|---|---|---|---|---|---|---|---|---|
| Route of exposure | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | Chronic local | Chronic systemic |
| Inhalation. | | | | | 0,1 mg/m3 | VND | 0,05 mg/m3 | VND |

**AMMONIUM HEPTAMOLYBDATE TETRAHYDRATE**

**Threshold Limit Value.**

| Type | Country | TWA/8h | | STEL/15min | | |
|---|---|---|---|---|---|---|
| | | mg/m3 | ppm | mg/m3 | ppm | |
| TLV-ACGIH | | 0,5 | | | | Molybdenum soluble compound |

**Health - Derived no-effect level - DNEL / DMEL**

| | Effects on consumers. | | | | Effects on workers | | | |
|---|---|---|---|---|---|---|---|---|
| Route of exposure | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | Chronic local | Chronic systemic |
| Inhalation. | | | | | | | VND | 19,36 mg/m3 |

## SECTION 8. Exposure controls/personal protection. ... / >>

**SODIUM HYDROGEN SULFATE MONOHYDRATE**

| **Predicted no-effect concentration - PNEC.** | | |
|---|---|---|
| Normal value in fresh water | 11,9 | mg/l |
| Normal value in marine water | 1,109 | mg/l |
| Normal value for fresh water sediment | 40,2 | mg/kg/d |
| Normal value for marine water sediment | 4,02 | mg/kg/d |
| Normal value for water, intermittent release | 17,66 | mg/l |
| Normal value of STP microorganisms | 800 | mg/l |
| Normal value for the terrestrial compartment | 1,54 | mg/kg/d |

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

AMMONIUM HEPTAMOLYBDATE TETRAHYDRATE
Methods for measurement of the workplace atmosphere have to correspond to the requirements of norms UNI EN 482 and UNI EN 689.
SULPHURIC ACID
Methods for measurement of the workplace atmosphere have to correspond to the requirements of norm OSHA ID-113.

**8.2. Exposure controls.**

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

## SECTION 9. Physical and chemical properties.

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

| | | |
|---|---|---|
| Appearance | | liquid |
| Colour | | colourless |
| Odour | | odourless |
| Odour threshold. | | Not available. |
| pH. | | 0,4 |
| Melting point / freezing point. | | Not available. |
| Initial boiling point. | | Not available. |
| Boiling range. | | Not available. |
| Flash point. | > | 60 °C. |
| Evaporation rate | | Not available. |
| Flammability (solid, gas) | | Not available. |
| Lower inflammability limit. | | Not available. |
| Upper inflammability limit. | | Not available. |
| Lower explosive limit. | | Not available. |
| Upper explosive limit. | | Not available. |

## SECTION 9. Physical and chemical properties. ... / >>

| | |
|---|---|
| Vapour pressure. | Not available. |
| Vapour density | Not available. |
| Relative density. | 1,200 |
| Solubility | soluble in water |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature. | Not available. |
| Decomposition temperature. | Not available. |
| Viscosity | Not available. |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

**9.2. Other information.**

| | |
|---|---|
| Total solids (250°C / 482°F) | 28,35 % |
| VOC (Directive 2010/75/EC) : | 0 |
| VOC (volatile carbon) : | 0 |

## SECTION 10. Stability and reactivity.

**10.1. Reactivity.**

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

SULPHURIC ACID
SULPHURIC ACID 98%: Decomposes at 450°C/842°F, has a corrosive effect, strong oxidising agent.

**10.2. Chemical stability.**

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

SULPHURIC ACID
SULPHURIC ACID 98%: Stable under standard ambient condition.

**10.3. Possibility of hazardous reactions.**

No hazardous reactions are foreseeable in normal conditions of use and storage.

SULPHURIC ACID
SULPHURIC ACID 98%: Violent reactions possible with: Water, Alkali metals, alkali compounds, Ammonia, Aldehydes, acetonitrile, Alkaline earth metals, alkalines, Acids, alkaline earth compounds, Metals, metal alloys, Oxides of phosphorus, phosphorus, hydrides, halogen-halogen compounds, oxyhalogenic compounds, permanganates, nitrates, carbides, combustible substances, organic solvent, acetylidene, Nitriles, organic nitro compounds, anilines, Peroxides, picrates, nitrides, lithium silicide, iron(III) compounds, bromates, chlorates, Amines, perchlorates, hydrogen peroxide.

AMMONIUM HEPTAMOLYBDATE TETRAHYDRATE
Strong acids.

SODIUM HYDROGEN SULFATE MONOHYDRATE
Exothermic reaction with: Water, Strong oxidizing agents, Strong bases, Alcohols.

**10.4. Conditions to avoid.**

None in particular. However the usual precautions used for chemical products should be respected.

AMMONIUM HEPTAMOLYBDATE TETRAHYDRATE
Heating (decomposition).

**10.5. Incompatible materials.**

SULPHURIC ACID
SULPHURIC ACID 98%: Animal/vegetable tissues, Metals. Contact with metals liberates hydrogen gas.

SODIUM HYDROGEN SULFATE MONOHYDRATE
Metals.

**10.6. Hazardous decomposition products.**

SULPHURIC ACID

SULPHURIC ACID 98%: Sulphur oxide.

## SECTION 11. Toxicological information.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

**11.1. Information on toxicological effects.**

SODIUM HYDROGEN SULFATE MONOHYDRATE
Acute inhalation toxicity, Symptoms: Possible damages, mucosal irritations, Inhalation may lead to the formation of oedemas in the respiratory tract - Eye irritation rabbit, Result: Causes burns, Risk of blindness! Causes serious eye damage.

AMMONIUM HEPTAMOLYBDATE TETRAHYDRATE
Specific target organ toxicity, single exposure, The substance or mixture is not classified as specific target organ toxicant, single exposure - Specific target organ toxicity, repeated exposure, The substance or mixture is not classified as specific target organ toxicant, repeated exposure - Aspiration hazard, Based on available data the classification criteria are not met.

SULPHURIC ACID
SULPHURIC ACID 98% - Skin irritation: causes severe burns - Eye irritation: causes seriuos eye damage, risk of blindness!.

ACUTE TOXICITY.

| | |
|---|---|
| LC50 (Inhalation - vapours) of the mixture: | Not classified (no significant component). |
| LC50 (Inhalation - mists / powders) of the mixture: | Not classified (no significant component). |
| LD50 (Oral) of the mixture: | Not classified (no significant component). |
| LD50 (Dermal) of the mixture: | Not classified (no significant component). |

SODIUM HYDROGEN SULFATE MONOHYDRATE

| | |
|---|---|
| LD50 (Oral). | 2490 mg/kg Rat |
| LC50 (Inhalation). | 2,4 mg/l/4h |

SULPHURIC ACID

| | |
|---|---|
| LD50 (Oral). | 2140 mg/kg Rat |

SKIN CORROSION / IRRITATION.
Corrosive for the skin.

SERIOUS EYE DAMAGE / IRRITATION.
Causes serious eye damage.

RESPIRATORY OR SKIN SENSITISATION.
Does not meet the classification criteria for this hazard class.

GERM CELL MUTAGENICITY.
Does not meet the classification criteria for this hazard class.

CARCINOGENICITY.
Does not meet the classification criteria for this hazard class.

REPRODUCTIVE TOXICITY.
Does not meet the classification criteria for this hazard class.

STOT - SINGLE EXPOSURE.
Does not meet the classification criteria for this hazard class.

STOT - REPEATED EXPOSURE.
Does not meet the classification criteria for this hazard class.

ASPIRATION HAZARD.
Does not meet the classification criteria for this hazard class.

## SECTION 12. Ecological information.

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

**12.1. Toxicity.**

SODIUM HYDROGEN SULFATE MONOHYDRATE
Toxicity to bacteria, EC10 Pseudomonas putida: > 1.000 mg/l, 16 h, DIN 38412 (anhydrous substance).

SODIUM HYDROGEN SULFATE MONOHYDRATE

| | |
|---|---|
| LC50 - for Fish. | 7960 mg/l/96h Pimephales promelas |
| EC50 - for Crustacea. | 190 mg/l/48h Daphnia magna |

AMMONIUM HEPTAMOLYBDATE TETRAHYDRATE

| | |
|---|---|
| EC50 - for Crustacea. | 1020 mg/l/48h |

SULPHURIC ACID

| | |
|---|---|
| LC50 - for Fish. | 42 mg/l/96h Gambusia affinis |
| EC50 - for Crustacea. | 42,5 mg/l/48h |
| EC50 - for Algae / Aquatic Plants. | > 100 mg/l/72h |

**12.2. Persistence and degradability.**

SODIUM HYDROGEN SULFATE MONOHYDRATE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

SULPHURIC ACID
Solubility in water. 1000 - 10000 mg/l
Biodegradability: Information not available.

**12.3. Bioaccumulative potential.**
Information not available.

**12.4. Mobility in soil.**
Information not available.

**12.5. Results of PBT and vPvB assessment.**

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

**12.6. Other adverse effects.**
SODIUM HYDROGEN SULFATE MONOHYDRATE
Biological effects: Harmful effect due to pH shift. Further information on ecology, Discharge into the environment must be avoided.
SULPHURIC ACID
SULPHURIC ACID 98%: Biological effect: Forms corrosive mixture with water even if diluted, Harmful effect due to pH shift, Endangers drinking-water supplies if allowed to enter soil or water, Discharge into the environment must to be avoid.

## SECTION 13. Disposal considerations.

**13.1. Waste treatment methods.**
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

## SECTION 14. Transport information.

**14.1. UN number.**

ADR / RID, IMDG, IATA: 3264

**14.2. UN proper shipping name.**

ADR / RID: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (SULFURIC ACID, SODIUM BISULFATE, MIXTURE)
IMDG: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (SULFURIC ACID, SODIUM BISULFATE, MIXTURE)
IATA: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (SULFURIC ACID, SODIUM BISULFATE, MIXTURE)

**14.3. Transport hazard class(es).**

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

**14.4. Packing group.**

ADR / RID, IMDG, IATA: II

**14.5. Environmental hazards.**

ADR / RID: NO
IMDG: NO
IATA: NO

**14.6. Special precautions for user.**

| | | | |
|---|---|---|---|
| ADR / RID: | HIN - Kemler: 80<br>Special Provision: - | Limited Quantities: 1 L | Tunnel restriction code: (E) |
| IMDG: | EMS: F-A, S-B | Limited Quantities: 1 L | |
| IATA: | Cargo:<br>Pass.:<br>Special Instructions: | Maximum quantity: 30 L<br>Maximum quantity: 1 L<br>A3, A803 | Packaging instructions: 855<br>Packaging instructions: 851 |

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

Information not relevant.

## SECTION 15. Regulatory information.

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

Seveso Category - Directive 2012/18/EC: None.

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.
Product.
Point. 3

Substances in Candidate List (Art. 59 REACH).
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH).
None.

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

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Healthcare controls.
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

WGK 2: Hazard to waters

**15.2. Chemical safety assessment.**

A chemical safety assessment has been performed for the following contained substances.
SULPHURIC ACID

## SECTION 16. Other information.

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

| | |
|---|---|
| **Met. Corr. 1** | Substance or mixture corrosive to metals, category 1 |
| **Skin Corr. 1A** | Skin corrosion, category 1A |
| **Skin Corr. 1B** | Skin corrosion, category 1B |
| **Skin Corr. 1C** | Skin corrosion, category 1C |
| **Eye Dam. 1** | Serious eye damage, category 1 |
| **Eye Irrit. 2** | Eye irritation, category 2 |
| **Skin Irrit. 2** | Skin irritation, category 2 |
| **H290** | May be corrosive to metals. |
| **H314** | Causes severe skin burns and eye damage. |
| **H318** | Causes serious eye damage. |
| **H319** | Causes serious eye irritation. |
| **H315** | Causes skin irritation. |

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds

**SECTION 16. Other information.** ... / >>

- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

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Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
01 / 02 / 03 / 04 / 05 / 07 / 08 / 09 / 10 / 11 / 12 / 14 / 15 / 16.
Changed TLVs in section 8.1 for following countries:
DEU,