

TC18300 - SULFURIC ACID 6N=3M

Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878 and to Annex II to UK REACH

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

1.1. Product identifier

Code: TC18300
 Product name: SULFURIC ACID 6N=3M

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

Intended use: reagent for laboratory, industrial use

1.3. Details of the supplier of the safety data sheet

Name: TITOLCHIMICA SPA
 Full address: VIA S.PIETRO MARTIRE 1054
 District and Country: 45030 PONTECCHIO POLESINE (RO)
 ITALIA
 Tel. +39425492644

e-mail address of the competent person

responsible for the Safety Data Sheet: utecnico@titolchimica.it
 Supplier: TITOLCHIMICA SPA

1.4. Emergency telephone number

For urgent inquiries refer to
Poison Centers (24 / 24h):
 Pavia - 038224444;
 Milan - 0266101029;
 Bergamo - 80083300;
 Verona - 800011858;
 Florence - 0557947819;
 Rome - Gemini 063054343;
 Rome - Umberto I 0649978000;
 Rome - Baby Jesus 0668593726;
 Naples - 0815453333;
 Foggia - 800183459.

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 (EU) Regulation 2020/878. 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:

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

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Hazard statements:

H314 Causes severe skin burns and eye damage.

Precautionary statements:

P260 Do not breathe dust / fume / gas / mist / vapours / spray.

P264 Wash hands thoroughly after handling.

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

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

Contains: Sulphuric acid....%

2.3. Other hazards

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

The product does not contain substances with endocrine disrupting properties in concentration \geq 0.1%.

SECTION 3. Composition/information on ingredients
3.2. Mixtures

Contains:

Identification	Conc. %	Classification (EC) 1272/2008 (CLP)
Sulphuric acid....%		
INDEX 016-020-00-8	20 - 30	Skin Corr. 1A H314, Eye Dam. 1 H318, Classification note according to Annex VI to the CLP Regulation: B
EC 231-639-5		Skin Corr. 1A H314: \geq 15%, Skin Irrit. 2 H315: \geq 5%, Eye Dam. 1 H318: \geq 15%, Eye Irrit. 2 H319: \geq 5%
CAS 7664-93-9		
REACH Reg. 01-2119458838-20-XXXX		

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

SECTION 4. First aid measures

In case of tired breath, give oxygen. Make sure the medical staff is aware of the materials involved and take the necessary precautions to protect yourself. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

4.1. Description of first aid measures

Sulphuric acid....%

If exposed or if you feel unwell, call a POISON CENTER or doctor/physician. Show this safety data sheet to the visiting doctor. In case of contact with SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Remove from danger area. In case of INHALATION: take the injured person into the open air and keep him at rest in a position which is comfortable for breathing.

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

Sulphuric acid....%

Sulfuric acid has a corrosive effect on human tissue, with the possibility of damaging the respiratory tract, eyes, skin and intestines.

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

Sulphuric acid....%

If exposed or if you feel unwell, call a POISON CENTER or doctor/physician. Show this safety data sheet to the visiting doctor.

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SECTION 5. Firefighting measures**5.1. Extinguishing media**

SUITABLE EXTINGUISHING MEDIA

The means of extinction are the traditional ones: carbon dioxide, foam, dust and water spray if the containers are intact.

UNSUITABLE EXTINGUISHING MEDIA

Direct water jets. Do not use water in case of product spillage.

5.2. Special hazards arising from the substance or mixture

Sulphuric acid...%

The product is not flammable and does not support combustion. Move away from the containers and cool them with water from a protected position. The product reacts with most metals to produce explosive hydrogen gas and sulfur oxides. Sulfuric acid readily dissociates in water composing itself into hydrated protons and sulfur ions.

5.3. Advice for firefighters

Sulphuric acid...%

In the event of uncontrolled spills or discharges into waterways, the appropriate local authorities must be immediately informed (for example, the Environment Agency, AUSL, etc.). Collect (dry) with inert and non-combustible materials, then rinse the area with water. The collected substance must be stored in hermetically sealed containers and delivered for disposal according to local regulations. Protective equipment for fire-fighters: gas masks with universal filter or self-contained breathing apparatus.

SECTION 6. Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

For those who intervene directly: Dismantle unnecessary staff. Use the individual protective devices recommended in section 8 of the Safety Data Sheet. For those who do not intervene directly: Dismantle unnecessary staff. Contact local authorities if it is impossible to contain significant losses. Stay over wind. Keep people away from the loss, overwhelming. Ventilate closed spaces before entering. Stay away from the low areas. Provide adequate ventilation. Use a personal protective equipment recommended in section 8 of the Safety Data Sheet.

6.2. Environmental precautions

Sulphuric acid...%

Prevent material from going into surface water or sewage systems. Do not discharge directly into a water source. In case of accidental spillage or release into sewers or water courses, contact local authorities.

6.3. Methods and material for containment and cleaning up

Sulphuric acid...%

For recovery or disposal, vacuum or clean and place in suitable labeled containers. Clean the affected area with a large amount of water. Avoid dispersion in the wind. Residual traces can be wiped out. If you want to neutralize the substance, use sodium carbonate, sodium bicarbonate, sodium hydroxide with caution.

6.4. Reference to other sections

Sulphuric acid...%

See section 8 (personal protective equipment) and section 13 (waste disposal).

SECTION 7. Handling and storage**7.1. Precautions for safe handling**

During handling, use the protective means indicated in item 8 of this sheet and the procedures below: do not smoke, do not eat, do not drink while handling; Use special caution in handling, to avoid any exposure to the product. Provide careful ventilation / suction in the workplace; Wash your hands thoroughly after handling and at the end of the turn; It is advisable to shower if handled in large quantities.

7.2. Conditions for safe storage, including any incompatibilities

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Use caution when storing the product:

- keep in mind the chemical and physical characteristics of the preparation to avoid possible interactions with other products
- keep hermetically sealed containers in a cool and ventilated place, not exposed to direct sunlight.
- Keep this material away from food, drink and animal feed.

The product is stable but can be corrosive to metals.

7.3. Specific end use(s)

Industrial use.

SECTION 8. Exposure controls/personal protection
8.1. Control parameters

Regulatory References:

DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
ESP	España	Limites de exposición profesional para agentes químicos en España 2021
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2022

Sulphuric acid....%
Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	0,1		0,1		INHAL aerosol
MAK	DEU			0,2 (C)		INHAL
VLA	ESP	0,05				
VLEP	FRA	0,05		3		THORA
VLEP	ITA	0,05				THORA
WEL	GBR	0,05				THORA
OEL	EU	0,05				THORA
TLV-ACGIH		0,2		0,05		fnpl. A2, (M), (T)

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0025	mg/l
Normal value in marine water	0,0002	mg/l
Normal value for fresh water sediment	0,002	mg/kg/d
Normal value for marine water sediment	0,002	mg/kg/d
Normal value of STP microorganisms	8,8	mg/l

Health - Derived no-effect level - DNEL / DMEL

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

Legend:

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

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VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

Sulphuric acid...%

Sampling methods: https://amcaw.ifa.dguv.de/substance/methoden/097-sulphuric_acid_2016.pdf

8.2. Exposure controls

Sulphuric acid...%

Suitable technical controls: Use adequate and effective ventilation. It is also good practice to have an eye washing facility and a safety shower near the material storage or use facilities. The exposure scenarios provide for use up to 360 days a year.

Respiratory protection: Arrange suction points (with air expulsion) where material is transferred and in other open points. Discharge outside into a ventilated booth equipped with laminar air flow.

Automate activities where possible. Wear acid vapor mask (example DIN 3181 ABEK)

Hand protection: Protective anti-acid gloves (eg plastic, rubber) marked EN374.

Eye protection: Use protective goggles against accidental penetration of liquids. Safety glasses.

Skin and body protection: Body protection suit. Choose the most suitable type according to the quantity and concentration of the substance in the workplace.

Other control measures: Handle in accordance with good industrial hygiene and safety. At work do not eat or drink. Do not smoke while working. Wash hands before breaks and at the end of the work day.

Arrange adequate first aid actions before starting work with this product.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	clear liquid	
Colour	colourless	
Odour	characteristic of sulfuric acid	
Melting point / freezing point	not available	
Initial boiling point	not available	
Boiling range	>100 °C	
Flammability	incombustible	
Lower explosive limit	not applicable	
Upper explosive limit	not applicable	
Flash point	not applicable	
Auto-ignition temperature	not available	
Decomposition temperature	> 300 °C	
pH	<0,5	
Kinematic viscosity	not available	
Solubility	Fully miscible with water	
Partition coefficient: n-octanol/water	not available	
Vapour pressure	not available	
Density and/or relative density	1,18	
Relative vapour density	not available	
Particle characteristics	not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

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Information not available

9.2.2. Other safety characteristics

Molecular weight g/mol	98,08
Oxidising properties	oxidizing agent
Formula	H ₂ SO ₄

SECTION 10. Stability and reactivity

In the absence of information on the mixture, the literature information on the components is reported. This information is not characteristic of the solution but of the dangerous components.

10.1. Reactivity

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

10.2. Chemical stability

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

Sulphuric acid...%

Stable in normal conditions of use and storage.

Reacts with strong oxidizing agents and with alkaline substances (bases).

10.3. Possibility of hazardous reactions

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

Sulphuric acid...%

Reacts with: water, alcohols.

The product reacts with metals with the development of highly flammable hydrogen. The acid reacts violently with alkali with the development of heat, the same when water is added.

10.4. Conditions to avoid

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

Sulphuric acid...%

Any use involving the formation of aerosols or the release of vapor above 0.05 mg / m³ where workers are exposed, without using adequate respiratory protection. Any use with risk of splashes to eyes / skin where workers are exposed, without adequate eye / skin protection.

10.5. Incompatible materials

Sulphuric acid...%

Flammable substances, reducing substances, basic substances, metals, organic substances and water.

10.6. Hazardous decomposition products

Sulphuric acid...%

As it burns, it develops sulfur oxides.

When heated, it emits highly toxic fumes.

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.

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11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
Metabolism, toxicokinetics, mechanism of action and other information

Sulphuric acid...%

In inhalation exposure, the effects depend on the size of the aerosol particles (which determine the deposit site in the respiratory tract), on the humidity of the environment and on the respiratory tract (which determines the size of the particles), on the respiratory frequency. and the buffer capacity of the airways as well as their architecture.

In the human respiratory system, the ammonia produced can partially neutralize the acidity of the aerosol and modify the secretion of mucus. The mode of respiration influences the deposition of particles.

Whatever the size of the particles, in the presence of mouth breathing, the dose deposited is greater in the oropharynx, larynx and upper trachea.

Sulfuric acid rapidly dissociates into hydrogen ions and sulfate ions. The latter are incorporated into the body's electrolyte pool, the excess is eliminated in the urine. The toxic effects are due to the hydrogen ion which locally modifies the pH.

Information on likely routes of exposure

Sulphuric acid...%

The main routes of potential exposure are inhalation, skin contact and ingestion.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sulphuric acid...%

Exposure to vapors or aerosols of the substance results in symptoms of irritation of the eyes, skin and respiratory tract. Severity is a function of concentration, duration of exposure, size of inhaled particles and ambient humidity.

In cases of moderate severity there is irritation of the nose, eyes, throat, painful chest tightness, cough and difficulty in breathing. The main complication is delayed pulmonary edema which can occur within 48 hours of exposure and can be triggered or aggravated by physical exertion. Infectious complications are frequent.

In the case of massive exposures there can be: bronchospasm, laryngeal edema and acute respiratory failure which can rapidly evolve into shock with death due to cardio-respiratory failure.

Sequelae are chronic respiratory insufficiency following severe intoxication and in relation to lesions such as: obliterating bronchiolitis, emphysema or fibrosis.

Another complication can be hyposmia or anosmia associated with chronic rhinitis.

Ingestion of a concentrated solution causes severe caustic lesions of the digestive tract. Oral pharyngeal, posterior sternal and epigastric pain, dysphagia, hypersialorrhea and often bloody vomiting occur. This symptomatology can be associated with respiratory symptoms of laryngeal edema or inhalation lung disease. Tissue necrosis involves hydroelectrolytic disturbances, metabolic acidosis, hyperleukocytosis, haemolysis, increased tissue enzymes and sometimes a consumption coagulopathy.

In the first week the possible complications are: digestive perforation, digestive haemorrhage, state of shock and infectious complications. The main long-term complications are the cancerization of scar lesions.

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	Not classified (no significant component)
ATE (Dermal) of the mixture:	Not classified (no significant component)

Sulphuric acid...%

LD50 (Oral):	2140 mg/kg Rat (OECD calc.)
LC50 (Inhalation mists/powders):	0,85 mg/l/4h topo

Sulfuric acid causes severe irritation to the eyes, mucous membranes and exposed parts of the skin.

Data on aerosol substance:

LC50: (rat)	375 mg / m3
LC50 (mouse - 4 hours exposure):	0.85 mg / L air
LC50 (mouse - 8 hours exposure):	0.60 mg / L air
LC50 (rabbit - 7 hours of exposure):	1.61 mg / L air

Data on vapor substance:

LC50: (rat - 2 hours exposure):	0.51 mg / L air
LC50 (mouse - 2 hours exposure):	0, 32 mg / L air.

SKIN CORROSION / IRRITATION

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Corrosive for the skin

Sulphuric acid...%

Direct contact of the skin with a concentrated solution of sulfuric acid (pH <2) leads to caustic lesions, the more severe the longer the contact time and the higher the concentration.

Clinically there is erythema, pain and localized edema followed by flitene, areas of necrosis and ulcers if decontamination is not promptly carried out. The lesions can become infected and residual scars and functional sequelae.

Corrosion to the respiratory tract

The concentrated substance, in large doses, has caustic power.

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

Sulphuric acid...%

At the ocular level, the substance causes burns that occur clinically with immediate pain, lacrimation, conjunctival hyperaemia, local edema, blepharospasm. The substance, unlike the strong bases which spread rapidly in depth, causes a rapid necrosis of the superficial tissues and this limits the penetration into the deep tissues.

In case of prolonged contact with highly concentrated solutions, the lesions affect the iris and the lens.

Possible complications are cataracts, glaucoma, corneal opacities, scarring of the eyelids and even blindness.

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

Respiratory sensitization

Sulphuric acid...%

Inhalation of the substance can cause Brooks syndrome (irritant-induced asthma).

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

Sulphuric acid...%

In vitro gave negative results in the Ames assay with or without metabolic activation.

Positive responses are reported in other assays, but are considered a consequence of the pH change produced by the substance.

No in vivo studies are available.

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Sulphuric acid...%

In a recent evaluation, the data showed an association between exposure to strong inorganic acid mists and laryngeal cancer in humans, while they were limited to affirm a causal association with bronchial cancer. In humans, a positive association was also observed between exposure to strong inorganic acid mists and lung cancer (IARC, 2012).

No animal studies are available in the literature.

- The International Agency for Research on Cancer (IARC) allocates mists of strong inorganic acids to group 1 (confirmed human carcinogen), based on evidence of sufficient carcinogenicity in humans (laryngeal cancer and positive association between exposure to strong inorganic acid mists and lung cancer) (IARC, 2012).

The US National Toxicology Program (NTP) lists strong inorganic acid mists containing sulfuric acid in the Thirteenth Report on Carcinogens in the category of recognized human carcinogens. (US DHHS, 2014).

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

Adverse effects on development of the offspring

Sulphuric acid...%

The substance, in the light of current knowledge, does not appear to have developmental toxicity.

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STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

Sulphuric acid...%

Long-term exposure to low concentrations of sulfuric acid causes dental erosions.

Repeated contacts at low concentrations of solutions of the substance can cause contact dermatitis.

Signs of nasal irritation (metaplasia, dysplasia, atypia of the nasal mucosa) and chronic bronchitis are reported in exposed workers.

In animals, repeated exposure to sulfuric acid shows great variability in response depending on the species and the effect studied. However, the toxic effects are, in all cases, caused by local irritation, there is no systemic effect. (INRS, 2010).

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

Sulphuric acid...%

Long-term exposure causes dental erosions.

Repeated contacts at low concentrations of solutions of the substance can cause contact dermatitis.

Signs of nasal irritation (metaplasia, dysplasia, atypia of the nasal mucosa) and chronic bronchitis are reported in exposed workers.

Repeated dose toxicity:

Inhalation: Sub-chronic - the NOAEC is 150 ppm for rats / mice, 30-90 days, 12-23.5 hours / day;

Chronic - the NOEC is 10 mg / m³ for rats / mice, 6 months, 6 hours / day, 5 days / week.

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

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

Sulphuric acid...%

LC50 - for Fish > 16 mg/l/96h (pH 3,25-3,5)

EC50 - for Crustacea > 100 mg/l/48h (OECD 202)

EC50 - for Algae / Aquatic Plants > 100 mg/l/72h

Chronic NOEC for Fish 0,025 mg/l

Chronic NOEC for Crustacea 0,15 mg/l Daphnia magna

Fish (long term) EC10/LC10 or NOEC : 0.025 mg/L

Daphnia magna (long-term) EC10/LC10 or NOEC : 0.15 mg/L

It is recognized that the aquatic toxicity of sulfuric acid will occur if enough acid is present to produce a very low pH (i.e. pH 3-5). As the environmental exposure assessment shows insignificant changes in aquatic pH levels as a function of the product formulation and its proposed use, it is considered that there is no long-term risk to aquatic organisms and, therefore, no data on chronic fish effects.

12.2. Persistence and degradability

Sulphuric acid...%

This test cannot be performed as the substance is inorganic, nor is normal use expected to lead to a significant release of the substance into the sea.

12.3. Bioaccumulative potential

Sulphuric acid...%

Partition coefficient n-octanol/water: it is not significant as the substance is inorganic.

Bioconcentration factor (BCF): Very low bioaccumulation potential, given the properties of the substance.

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12.4. Mobility in soil

Sulphuric acid....%

In relation to land mobility it should not be relevant. If in contact with the ground, the absorption by soil particles is negligible. Depending on the buffering capacity of the soil, the H + ions will be neutralized in the water of the soil pores by the organic or inorganic substance or the pH may decrease.

12.5. Results of PBT and vPvB assessment

Sulphuric acid....%

Persistence Assessment. The substance can be considered as non-biodegradable for the aquatic and terrestrial environment. Test results indicate that the substance is persistent (half-life in seawater > 60 days, in soil > 120 days). Therefore the criteria for classification P are met.

Evaluation on Bioaccumulation. The substance is considered cationic at ambient pH levels, the log Kow was calculated on a value of -1. Following the Guide in Annex VIII, this value does not involve any potential for bioaccumulation.

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

12.6. Endocrine disrupting properties

Sulphuric acid....%

For the aquatic environment, the effects of sulfuric acid are clearly attributable to the effect of pH, as acid dissociates completely into ions. The same substance, therefore, will not reach the sediment / terrestrial environment.

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

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 or ID number

ADR / RID, IMDG, IATA: 2796

14.2. UN proper shipping name

ADR / RID: SULPHURIC ACID

IMDG: SULPHURIC ACID

IATA: SULPHURIC ACID

14.3. Transport hazard class(es)

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8



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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 Special provision: -	Limited Quantities: 1 L	Tunnel restriction code: (E)
IMDG:	EMS: F-A, S-B	Limited Quantities: 1 L	
IATA:	Cargo: Passengers: Special provision:	Maximum quantity: 30 L Maximum quantity: 1 L -	Packaging instructions: 855 Packaging instructions: 851

14.7. Maritime transport in bulk according to IMO instruments

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/EU: None

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

<u>Product</u>	
Point	3

<u>Contained substance</u>	
Point	75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

Restricted explosives precursor

The acquisition, introduction, possession or use of that restricted explosives precursor by members of the general public is subject to a restriction as set out in Article 5(1) and (3). Restricted explosives precursors shall not be made available to, or introduced, possessed or used by members of the general public.

The acquisition, introduction, possession or use of that regulated explosives precursor by members of the general public is subject to reporting obligations as set out in Article 9.

All suspicious transactions and significant disappearances and thefts must be reported to the relevant national contact point.

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage \geq than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

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Substances subject to exportation reporting pursuant to Regulation (EU) 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.

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:

Skin Corr. 1A	Skin corrosion, category 1A
Eye Dam. 1	Serious eye damage, category 1
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 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: 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: Regulation (EC) 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: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation

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- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

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 - Handling Chemical Safety
 - INRS - Fiche Toxicologique (toxicological sheet)
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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.

CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:

The following sections were modified:

02 / 03 / 04 / 05 / 06 / 07 / 08 / 09 / 10 / 11 / 12 / 14 / 15 / 16.