

1. IDENTIFICATION OF THE PRODUCT AND OF THE DISTRIBUTORName of the product's Security Data File
SEH022600.IN.02Identification of the product:
Professional CleanerIdentified relevant uses of the substance or mixture, and uses advised against

Description/Use:

Professional drain cleaner (see the corresponding Exposure Scenario, attached to this SDS)

Identification of the Distributor:

SUPER-EGO TOOLS, S. L.U.
Ctra. Durango – Elorrio, Km 2
48220 Abadiano Vizcaya, Spain
Telephone number: + 34 946 210 100
Fax: + 34 946 210 131
E-mail: superego@rothenberger.es
www.super-ego.es**2. COMPOSITION AND INFORMATION ABOUT THE COMPONENTS**

Substances.

Information not

Mixes:

Contains	Conc. %	Classification 67/548/EEC	Classification 1272/2008 (CLP)
Sulphuric acid CAS. 7664-93-9 CE. 231-639-5 INDEX 016-020-00-8 N.º Reg. 01-2119458838-20-XXXX	30 – 100	C R35, Nota B	Skin Corr. 1A H314, Note B

T+ = Highly toxic (T+), T = Toxic (T), Xn = Harmful (Xn), C = Corrosive (C), Xi = Irritant (Xi), O = Oxidising (O), E = Explosive (E), F+ = Highly flammable (F+), F = Easily flammable (F), N = Dangerous for the environment (N)

For the complete text of Risk phrases (R) and Hazard phrases (H) see section 16 of the data sheet

3. IDENTIFICATION OF THE POSSIBLE HAZARDS

Classification of the substance or mixture.

The product is classified as hazardous under the regulations of Directives 67/548/EEC and 1999/45/EC and/or (EC) Regulation 1907/2006 (CLP) (and subsequent amendments and adaptations). Therefore, the product requires a safety data sheet in compliance with the provisions of Regulation (EC) 1907/2006 and subsequent amendments and adaptations.

Eventual additional information about health and environmental hazards is available in Sections 11 and 12 of this data sheet.

Hazard symbols: C

R Phrases: 35

For the complete text of Risk phrases (R) and Hazard phrases (H) see section 16 of the data sheet.

Label elements.

Hazardous label according to Directives 67/548/EEC and 1999/45/EC and successive modifications and adaptations.

C - CORROSIVE

R35 – Causes serious burns

S1/2 – Keep locked away and out of children's reach.

S26 - In the case of contact with the eyes, immediately wash with plenty of water and go to a doctor.

S36/37/39 Use proper clothes and gloves and protection for the eyes/face.

S45 - In the event of accident or feeling unwell, immediately go to a doctor (and if possible show him/her the label).

Contains: Sulphuric acid

Other hazards:

Information not available

4. FIRST AIDDescription of first aids:

Eyes:

Wash immediately in plenty of water for at least 15 minutes. Consult a doctor.

Skin:

Wash immediately with plenty of water. Remove the contaminated clothing. Call the doctor. Wash the contaminated clothes separately before using again.

Inhalation:

Take the person into the fresh air: if breathing stops or becomes difficult carry out artificial respiration and call the doctor.

Ingestion:

Immediately call the doctor. Induce vomiting only when indicated by the doctor. Do not give anything orally if the person is unconscious.

Main symptoms and effects, acute and delayed.

See also section 11 for symptoms and effects caused by the substances contained in the preparation

Indication of any immediate medical attention and special treatment needed

Follow the doctor's indications.

5. MEASURES TO FIGHT AGAINST FIRES

Methods of extinction:

Suitable: The extinction methods are the traditional ones: carbonic anhydride, foam, powder and atomised water.
Unsuitable: none in particular.

Specific hazards derived from the substance or mixture:

Hazards due to exposure in the event of fire. Avoid breathing the combustion products (carbon oxide, toxic pyrolysis products, etc...).

Recommendations for the fire fighting staff

GENERAL INFORMATION:

Cool the containers with jets of water to avoid the product's decomposition and the development of substances potentially harmful to health. Always have the complete fire protection equipment. Collect the water used to put the fire out as it must not be put down the drains. Eliminate the contaminated water used for the extinction and the waste from the fire following the current regulations.

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EQUIPMENT:

Protection helmet with visor, fireproof clothing (fireproof jacket and trousers with bands around the arms, legs and waist), gloves (fireproof, cut-proof and dielectric), a pressure face mask covering the entire face of the operator or breathing apparatus in the event of large quantities of smoke.

6. MEASURES WHICH MUST BE TAKEN IN THE EVENT OF ACCIDENTAL SPILLAGE OR DISPERSION

Individual precautions, protection equipment and emergency procedures:

Put on the proper protection equipment. Move away the persons without equipment. In the event of dust or vapour in the air adopt breaching protection. Block the leak if there is no danger. Do not handle damaged containers or the spilt product without having previously put on the proper protection equipment. For information regarding the risks for the environment and health, protecting the respiratory tract, ventilation and the individual protection measures, refer to the other sections in this file.

Environmental precautions:

Prevent the product from reaching the drains, surface water, aquifers and confined areas. Abundantly dilute with water after having collected the product.

Contention and cleaning methods and material:

Such up the liquid into a suitable recipient (in material which is not incompatible with the product) and collect the spilled product with inert absorbent material (sand, vermiculite, diatomaceous earth, Kieselguhr, etc...). Collect as much of the resulting material with anti-spark tools and place it in containers for elimination. Eliminate the water with water jets if there are no contraindications. Provide sufficient ventilation for the place affected by the spillage. The disposal of contaminated material must be performed in compliance with the provisions of section 13.

Reference to other sections.

Eventual additional information about individual protection and disposal is available in Sections 8 and 13 of this data sheet.

7. HANDLING AND STORAGE

Precautions for a safe handling.:

Store in sealed and labelled containers.

Safe storage conditions, including possible incompatibilities:

Normal storage conditions, without specific incompatibilities.

Specific end uses.

Information not available.

8. CONTROL OF EXPOSURE / INDIVIDUAL PROTECTION

Control parameters:

Description	Type	State	TWA/8h mg/m ³	STEL/15 min mg/m ³
Sulphuric Acid	TLV-ACGIH		0,2	
	VLA	E	1	3

Whereas the use of proper technical measures must always have priority regarding the personal protection equipment, ensure good ventilation in the work place through effective local draught or by changing the contaminated air. If such operations do not allow the concentration of the product to be below the limit exposure values in the work place, use suitable protection for the respiratory tract. While using the product pay attention to the hazard label for the details. During the choice of the personal protection equipment ask for advice from suppliers of the chemical substances. The personal protection

apparatus must be in accordance with the current regulations indicated below.

Hand protection

Protect hands with category III PVC, butyl, fluoroelastomer or equivalent work gloves (ref. Directive 89/686/EEC and regulation EN 374)

The final selection of the glove material must be carried out on the basis of degradation, penetration times and permeation rated. In the case of preparations the resistance of glove materials cannot be foreseen and therefore has to be tested before use. The usage time of the gloves shall depend on the exposure period.

Eye protection

Use a hooded visor or protection visor and hermetic integral frame protection glasses (ref. regulation EN 166).

Skin protection

Use category III professional work clothes with long sleeves and protection shoes (ref. Directive 89/686/EEC and regulation EN 344). Wash with soap and water after having removed the protection clothes.

Breathing protection

In the event that the maximum threshold of one or various substances present in the preparation is exceeded, referring to the daily exposure in the working atmosphere or a fraction established by the company's protection and prevention service, use a E-type or universal type mask. Choose its type (1, 2 or 3) according to the limit concentration of use (ref. regulation EN 141).

The use of respiratory tract protection measures, like masks with cartridge for organic vapours and dusts/mists, is necessary in the absence of technical measures to limit the worker's exposure. The protection offered by the mark is limited.

In the event that the considered substance is odourless or if the olfactory threshold is greater than the corresponding exposure limit and in the case of emergency, or when the exposure levels are unknown or the concentration of oxygen in the working environment is lower than 17% in volume, put on open circuit compressed air breathing apparatus (ref. regulation EN 137) or breath with an external air source used with a full mask, half-mask or with a breathing tube (ref. regulation EN 138). Establish a system of eye washing and an emergency shower. The abovementioned substance or preparation (mixture, solution, dispersion, etc...) shall be prevented from coming into contact, even accidentally, with acids, by adopting the relevant technological and/or organizational measures.

9. PHYSICAL-CHEMICAL PROPERTIES

Information about physical and chemical properties:

Physical state:	Dense liquid
Colour:	Brown
Smell:	Characteristic
Odour threshold.	NA (not available).
pH.	NA (not available).
Melting or freezing point.	NA (not available).
Boiling point	300 °C.
Distillation range	NA (not available).
Flash point	NP (not applicable).
Evaporation rate	NA (not available).
Flammability of solids and gases	NA (not available).
Lower flammability limit	NA (not available).
Higher flammability limit	NA (not available).
Lower explosion limit	NA (not available).
Higher explosion limit	NA (not available).

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Vapour pressure. NA (not available).
Vapour density NA (not available).
Specific weight 1,83 Kg/l
Solubility soluble in water
Partition coefficient: n-octanol/water NA (not available).
Self-igniting temperature NA (not available).
Decomposition temperature NA (not available).
Viscosity NA (not available).
Exidising properties NA (not available).

Additional information.
Information not available.

10. STABILITY AND REACTIVITY

Reactivity:
Under normal conditions of use there is no particular danger of reaction with other substances. SULPHURIC ACID: it decomposes at 450° C.

Chemical stability:
The product is stable under normal conditions of use and storage.

Possibility of dangerous reactions:
Under normal conditions of use and storage no dangerous reactions are expected.

Conditions which should be avoided:
None in particular. In any event, follow the usual precautions for chemical products.

Incompatibles materials:
SULPHURIC ACID: inflammable substances, reducing agents, basic substances, metals, organic substances and water.

Hazardous decomposition products:
In the case of thermal decomposition or in the case of fire potentially harmful vapour may be given off.
SULPHURIC ACID: Sulphur oxides.

11. TOXICOLOGICAL INFORMATION

Information about toxicological effects

The product is corrosive and causes serious burns and blisters to the skin which may even appear after the exposure. The burns cause strong burning and pain. When it enters into contact with the eyes it causes serious injuries and may cause opacity of the cornea, injuries to the iris, irreversible colouration of the eye. Its possible vapours are caustic for the respiratory system and may cause pulmonary oedema, whose symptoms are sometimes shown after a few hours. The symptoms of exposure may include: burning sensation, coughing, astmatic breathing, laringitus, short breathing, headaches, nausea and vomiting. Its ingestion can cause burns to the mouth, to the throat and to the esophagus; vomiting, diarrhea, oedema, swelling of the laringe and, as a result, asphixia. It can even cause gastrointestinal perforation.

SULPHURIC ACID

LD50 (Oral): > 5000 mg/kg Rat.

12. ECOLOGICAL INFORMATION

Use according to good working practices, avoiding the dispersion of the product in the atmosphere. Warn the competent authorities if the product enters into contact with the water courses or drains or if it contaminates the land or vegetation.

Toxicity.
Information not available.

Persistence and degradability.
Information not available.

Bioaccumulative potential.
Information not available.

Soil motility.
Information not available.

Results of the PBT and mPmB assessment.
Information not available.

Other adverse effects.
Information not available.

13. CONSIDERATIONS REGARDING ITS ELIMINATION

Waste treatment measures:

Reuse if possible. The waste from the product has to be considered as particularly hazardous. The hazardousness of the waste which partly contain this product must be valued according to the current legislative regulations. The elimination must be entrusted to a company authorised for the management of waste, according to the provisions of the national and possibly the local regulations.

Contaminated packagings:

The contaminated packaging must be sent to be recovered or eliminated according to the national waste management regulations.

14. INFORMATION REGARDING TRANSPORT

The transport must be performed by vehicles authorised to transport hazardous goods according to the prescriptions of the current A.D.R. Agreement and the applicable national regulations. The goods must be transported in their original packaging and, under all circumstances, in packaging which cannot be attacked by the content and can generate dangerous reactions with it. Those entrusted with the loading and unloading the hazardous material must have received proper training about the risks presented by the material and about the possible procedures that must be adopted in the event of emergency situations.

Land or railway transport:

Class ADR/RID: 8 UN: 1830
Packing Group: II
Label: 8
Kemler No.: 80
Limited Quantity: 1I
Tunnel restriction code: (E)
Technical name: SULPHURIC ACID SOLUTION

Maritime transport:

Class IMO: 8 UN: 1830
Packing Group: II
Label: 8
EMS: F-A, S-B
Marine Pollutant: NO
Proper Shipping Name: SULPHURIC ACID SOLUTION

Air transport:

IATA: 8 UN: 1830
Packing Group: II
Label: 8
Cargo:
Packaging instructions: 855 Maximum quantity: 30 L

Pass.:
Packaging instructions: 851 Maximum quantity: 1 L
Proper Shipping Name: SULPHURIC ACID SOLUTION

12. N.I. Sax - Dangerous properties of Industrial Materials-7 Ed., 1989

15. INFORMATION REGARDING THE REGULATION

Seveso category. None.

Restrictions regarding the product or the substances contained according to appendix XVII Regulation (EC) 1907/2006.

Product. Point 3

Substances in the Candidate List (Art. 59 REACH).

None.

Substances subject to authorization (Annex XIV REACH).

None.

Health controls:

The workers exposed to this chemical agent do not have to be subject to health monitoring, provided that the results of the assessment of the risks show that there is only a moderate risk for the workers' health and safety and that the measures set out in Directive 98/24/EC are being respected and are sufficient in order to reduce the risk.

Assessment of the chemical safety:

For the purposes of art. 14 of Reg. EC 1907/2006, an assessment of the chemical safety has been prepared for the mixture and the substances contained therein.

16. ADDITIONAL INFORMATION

Text of the Hazard (R) phrases mentioned in sections 2-3 of the data sheet:

Skin Corr. 1A Skin corrosion, category 1A

H314 Causes severe skin burns and eye damage

Text of the Risk (R) phrases mentioned in sections 2-3 of the data sheet:

R35 – Causes serious burns

General bibliography:

1. Directive 1999/45/EC and subsequent amendments
2. Directive 67/548/EEC and subsequent amendments and adjustments
3. Regulation (EC) 1907/2006 of the European Parliament (REACH)
4. Regulation (EC) 1272/2008 of the European Parliament (CLP)
5. Regulation (EC) 790/2009 of the European Parliament (I Atp. CLP)
6. Regulation (EC) 453/2010 of the European Parliament
7. The Merck Index. Ed. 10
8. Handling Chemical Safety
9. Niosh - Registry of Toxic Effects of Chemical Substances
10. INRS - Fiche Toxicologique
11. Patty - Industrial Hygiene and Toxicology

Note for the user:

The information contained in this file is based on the knowledge available up to the date of the last version. The user must make sure that the information is proper and complete in relation to the specific use of the product.

This document must not be interpreted as guaranteeing any specific property of the product.

Given that we cannot directly control the use of the product, it is the user's obligation to respect, under its responsibility, the current laws and regulations as regards health and safety. No liability is accepted for improper uses.

Changes with respect to the previous revision:

Variations have been performed in the following sections:

01 / 03 / 15.

EXPOSURE SCENARIO (1 of 1)

1. EXPOSURE SCENARIO (1 of 1)

Use of sulphuric acid for drain cleaning

List of all use descriptors related to the life cycle stage

SU22 Professional use (use as cleaning agent for blocked drains that may be chemically treated)

PC 35

PROC 8a

ERC 8°

Description of the environmental scenario (1) and corresponding environmental release category (ERC): 1. (ERC8a)

Detail of the names of the workers' scenarios (2) and corresponding process categories (PROC): 3. (PROC8a)

2. OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES

Worker's exposure control

Product features

Physical state of product	Liquid
Vapour pressure	6 Pa
Molecular weight	98.08
Substance concentration in the product	98 %
Amount used	The assessed exposure of the workers is negligible.

Frequency and daily duration for 220 days/year

Other operational conditions influencing the worker's exposure.

Sporadic contacts may be verified – drain cleaning using sulphuric acid is occasionally performed

Breathing volume under working conditions: 10 m³/day (valor standard value for 8 working hours per day)

Skin contact area with the substance in working conditions: 480 cm² (standard ECETOC value).

Due to the corrosive nature of sulphuric acid, the skin exposure is not considered to be relevant for the risk characterization, and in any case, it must be prevented.

Room content and ventilation rate: the activity is usually performed in close environments, in rooms of standard dimensions. No specific aspiration system is necessary.

Scenarios. Risk management measures

Containment and good practice measures necessary: Local aspiration systems not required

The activity is usually performed in close environments, in rooms of standard dimensions. No specific aspiration system is necessary.

Personal Protection Devices: (PPD)

The involved workers are required to use skin protection, with suitable clothe, eyes protection and gloves to prevent any exposure during the transfer of the liquid.

Other risk management measures for the workers: No further measures are required.

Control of environmental exposure

Molecular weight	9808
Product features	
Vapour pressure	0.1 h Pa at 20°C
Solubility in water	Soluble
Partition coefficient	n-octanol/water -1 (logKow)
Koc 1	
Biodegradability	Non-biodegradable (inorganic acids cannot be considered to be biodegradable)
Amount used	1 Kg each time
Frequency and duration	365 days a year

Discharge volume of the waste water facility:
2000 m³/day (EUSES standard value for local STP)

Available flow of the receiving body of water where the local waste water is sent:

20.000 m³/day (ERC flow standard value allowing for a dissolution 10 times higher in the receiving body of water)

Pretreatment of local waste waters:

Generally treated within the indoor facilities, performing a chemical neutralization before sending it to the outdoor facilities or to the environment.

Amount of substance present in the drains from the facilities to the external system: 1 kg each time

Reduction of the emissions to the air: n.a.

Amount of substance discharged into the atmosphere: n.a.

On-site waste treatment : n.a.

Discharge flow of the waste water treatment facilities: n.a.

Sludges recovery for agricultural uses: n.a.

Amount of substance in the wasted derived from the articles: n.a.

Type of waste (suitable codes):

Suitable codes included in the European Waste Catalogue

Type of external treatment for the recycling and recovery of the substance:

None

Type of external treatment for the final waste of the residues:

None (emission in the drains)

Fraction of substance discharged into the atmosphere during the residue handling process: n.a.

Fraction of substance discharged into the waste water during the residues handling process: n.a.

Fraction of substance disposed of as secondary waste: n.a.

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3. EXPOSURE ASSESSMENT

Health

Tier 1 assessment: the assessment of the exposure through the respiratory tract has been performed using the ECETOC model

TRA

Input parameters for the model

Parameter

Molecular weight	98.08 g/mol
Vapour pressure	6 Pa
Physical state of product	Liquid
Pulverosity	n.a.
Duration of activity	<15 minutes

Ventilation of closed environments without local aspiration systems (LEV):

The exposure assessment with ECETOC has been considered to be unsatisfactory and not relevant for the purposes of risk characterization.

Tier 2 Assessment

The assessment of the exposure through the respiratory tract has been performed using the ART model

Input parameters for ART model: PROC Parameter

Exposure duration: 10 minutes (worst case scenario)

Type of product: Liquid (medium viscosity – like water)

Room temperature (15-25°C)

Vapour pressure: the substance is considered to be of low volatility, with assessment of vapour exposure

The primary emission source is located in the breathing area of the workers (in a 1 metre area)

Type of activity: Handling of liquid products

Localized control systems: None

Dispersion: Good natural ventilation in indoor areas

The assessed chronic and acute breathing exposure levels are applicable for all the processes inferior to the respective DNEL

Environment

Tier 1 Assessment:

It was carried out using the EUSES model and introducing the input standard data and the ERC.

Tier 2 Assessment:

It was carried out using the EUSES model and introducing the input data mostly related to the description of uses of sulphuric acid.

Input parameters for the EUSES model.

Input parameters Value of ERC standard unit (if applicable)

Molecular weight	98.08 g/mol
Vapour pressure at 20°	0.1 hPa
Solubility in water	Soluble Mg/ml
Partition coefficient	n-octanol/water -1 LogKow
Koc 1	
Biodegradability	Non-biodegradable
Life cycle phase	distributed usage
Type of environmental spillage	ERC 8a
Regional tonnage fraction (Tier 1)	1
STP	Yes
Emission events per year	365 DAYS 100
Emissions into the air (standard values)	0 % 100
Emissions to water (standard values)	100 % 100
Dissolution factor applied for PEC derivation	10 (20,000 m ³ /day)

Risk containment measures and measurable values used in Tier 2 assessment:

No further risk management measures are necessary apart from the ones described herein for the intended of the product

The concentration assessment for all the environmental areas are lower than the corresponding PNEC.

4. GUIDE TO ASSESS IF THE OPERATIONS ARE PERFORMED WITHIN THE ESTABLISH LIMITES OF THE SCENARIO

Health

The exposure is not expected to exceed the DNEL for chronic and acute breathing exposure due to local effect when the risk/operational conditions management measures described in Section 3 have been applied.

Where other Risk Management Measures / Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Uses advised against: n.a.

Environment

The exposure is not expected to exceed the PNEC when the risk/operational conditions management measures described in Section 3 have been applied.

Where several risk/operational conditions management measures are adopted, the users must guarantee that the risks are managed at a level at least equivalent.

Uses advised against: n.a.