



# DETERSOL

## MATERIAL SAFETY DATA SHEET

### 1 - IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY

Substance

Chemical Name

Commercial Names and                      Detersol

Synonyms

Chemical Abstract Nomenclature

# Uses

Scale-remover

Company

Tel. +39-0321-790-300 (please see bottom of the page)

# Emergency service

Niguarda Hospital tel. +39-02-6610-1029

### 2 - COMPOSITION / INFORMATION ON INGREDIENTS

- **General description of the components, relative concentrations and risks**

| Chemical name  | N° CAS    | N°EINECS  | Conc/Range % | Classification |           |
|----------------|-----------|-----------|--------------|----------------|-----------|
|                |           |           |              | Symbols        | R phrases |
| Sulphuric acid | 7664-93-9 | 231-639-5 | >15          | C              | R35       |

See Section 16 for the complete text of R phrases.

### 3 – HAZARDS IDENTIFICATION

Dangerous classified substance according to official current regulations.

Health risks                                      In case of contact with body and eyes it cause severe burns

Environmental risks                            If discharged into water the product can lead to a significant pH variation with negative effects on living organisms

Physical and chemical hazards            Unflammable product – In case of contact with inflammable  
Fire and explosion                            substances it can cause explosions and fire

### 4 – FIRST AID MEASURES

Inhalation                                        Move the injured person outside – Seek medical advice

Skin contact                                     Take off any contaminated clothes – Wash abundantly with soap and water – If necessary move the victim urgently to hospital

Eyes contact                                     Wash immediately with water for at least 15 minutes - Seek medical advice

Ingestion                                         Rinse the mouth with water - Seek medical advice

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## 5 – FIRE-FIGHTING MEASURES

|                                             |                                                                                 |
|---------------------------------------------|---------------------------------------------------------------------------------|
| Advised extinguishing agents                | Carbon dioxide                                                                  |
| Extinguishing agents to be avoided          | Water                                                                           |
| Dangers caused by combustion matters        | In case of contact with inflammable substances it can cause explosions and fire |
| Protection measures in case of intervention | Wear mask, safety gloves and anti-acid garments                                 |
| Additional information                      | Uninflammable product                                                           |

## 6 – ACCIDENTAL RELEASES MEASURES

|                                     |                                                                                                                                                                                    |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Collection and disposal methods     | Stop the leakage, isolate it and absorb it with dry sand and other inert materials; wash with plenty of water, then with solution of sodium carbonate and finally with water again |
| Personal-related safety precautions | Wear mask, safety gloves and anti-acid garments                                                                                                                                    |
| Environmental protection            | Prevent the introduction of the product within the sewage system or canals – Neutralize with powder lime or soda                                                                   |

## 7 – HANDLING AND STORAGE

|          |                                                                                                                                                                                                                                                      |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Handling | Prevent shocks – Use containers non subject to corrosion                                                                                                                                                                                             |
| Storage  | Store in a cool and well-ventilated place. Keep away from heat sources. Keep far from organic substances and other substances it reacts violently with (See Section 10: Stability and Reactivity). Foresee the presence of proper containment basins |

## 8 – PERSONAL PROTECTION / EXPOSURE CONTROL

|                        |                                                                       |
|------------------------|-----------------------------------------------------------------------|
| Respiratory protection | Overall face mask with purple filter                                  |
| Skin protection        | Wear appropriate protective clothes                                   |
| Hand protection        | Plastic gloves                                                        |
| Eyes protection        | Safety goggles with side screen                                       |
| Exposure limits        | TLV – TWA: 1 mg/m <sup>3</sup> (H <sub>2</sub> SO <sub>4</sub> conc.) |

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## 9 – PHYSICAL AND CHEMICAL PROPERTIES

|                                         |                |               |
|-----------------------------------------|----------------|---------------|
| Appearance                              | physical state | Liquid        |
|                                         | colour         | Colourless    |
|                                         | smell          |               |
| Melting point                           |                |               |
| Boiling point                           |                |               |
| Density                                 |                |               |
| Solubility in water                     |                | Soluble       |
| Flash point                             |                | Uninflammable |
| Inflammability limits (vol % in air)    |                |               |
| Autoignition temperature                |                |               |
| pH                                      |                |               |
| Coefficient of division n-octanol/water |                |               |

## 10 – STABILITY AND REACTIVITY

|                                  |                                                                                                                                                                                                                                                                |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conditions to be avoided         | Warming                                                                                                                                                                                                                                                        |
| Products to be avoided           | With reducing agents it produces heat. In presence of nitrates, picrates, chlorates, potassium permanganate and metal powders it can produce fire and explosions. Addition of water produces heat. Violent reaction with Na and K, NaOH and NH <sub>4</sub> OH |
| Hazardous decomposition products | In presence of sulphides it releases H <sub>2</sub> S, a toxic and inflammable gas                                                                                                                                                                             |

## 11 – TOXICOLOGICAL INFORMATION

|                         |                                                                 |
|-------------------------|-----------------------------------------------------------------|
| Penetration ways        | Inhalation yes<br>Ingestion yes<br>Contact yes                  |
| Acute toxicity          | LD50 (oral, rat): 2140 mg/kg (with reference to sulphuric acid) |
| Inhalation consequences | Irritation                                                      |
| Ingestion consequences  | Strong corrosion                                                |
| Skin local effects      | Strong corrosion                                                |
| Eyes local effects      | Strong corrosion                                                |
| Additional information  | Unknown                                                         |

## 12 – ECOLOGICAL INFORMATION

Do not release the product into the environment. Sulphuric acid results in a rapid destruction of animal tissues in case of contact. Sulphuric acid and its solutions corrode organic tissues in general.

## 13 – DISPOSAL CONSIDERATIONS

|                       |                                                                                                                                                              |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product               | Before disposal neutralize the product with alkalis. Dispose of the residual matters in accordance with the applicable law by an authorised contracting firm |
| Contaminated packages | Rinse thoroughly and dispose of depending on the material                                                                                                    |

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## 14 – TRANSPORT INFORMATION

ADR-UN nr 2796 not containing more than 51% acid  
ADR-class 8, II  
ADR-label 8 + UN2796  
IMDG-technical name

### # Sea transportation

IMO class 8  
IMDG code 2796  
UN nr 2796  
Package II  
EMS F-A, S-B  
Label 8 + UN2796

Other information To be transported only with means having the loading zone separated from the driver's cabin. Make sure that the driver is aware of the prospective risk of the loading and that he knows the actions to be taken in case of accident or in case of emergency

## 15 – REGULATORY INFORMATION

EC labelling  Required by the law  
 Temporary  
 Not required  
# Classification C R35

## 16 – OTHER INFORMATION

Hazard symbol C Corrosive  
# Risk phrases R35 Causes severe burns  
Safety phrases S26 In case of contact with eyes rinse immediately with plenty of water and seek medical advice  
S30 Never add water to this product  
S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible)

This material safety data sheet has been issued in accordance with 2001/58/CE.

Before starting the use of this product for any new process or experiment, it must be carried out a deep study on the safety and the compatibility of the product itself with materials it could come in contact with.

The information contained in this safety data sheet is given to protect health and safety at work. No responsibility is taken for possibile damages arising from uses of this information for different purposes from the ones here indicated.

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