



## **SAFETY DATA SHEET**

In compliance with EC Regulations No.: 1907/2006 and 453/2010.

Date last modified: 25 November 2014 - Version 4.0

### **1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY**

#### **1.1 Product Identifier**

**Product Name:** DESCALER POWDER

**Product Code #:** 832509 (25 Kgr)

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

**Intended Use:** Industrial applications; Cleaning agent for machinery, equipment & surfaces.

**Uses advised against:** This product is not recommended for any industrial, professional or consumer use other than the Intended Uses above.

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

##### **Company/undertaking identification**

##### **Supplier/Manufacturer:**

Marichem Marigases Hellas SA

Sfaktirias 64,

185 45 Piraeus,

Greece

Tel. No.: ++30 210 4148800

Fax No.: ++30 210 4133985

<http://www.marichem-marigases.com>

**e-mail:** mail@marichem-marigases.com

#### **1.4 Emergency telephone number**

Tel. No.: ++30 210 4148800 (including working hours)

##### **Emergency Information:**

Inside U.S. and Canada: (800)-424-9300 (CHEMTREC)

Outside U.S. and Canada: 1-703-527-3887 (CHEMTREC)

National Emergency Centre (Greece): ++30 210 7793777

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the mixture

Classification under EC 1272/2008 regulation - GHS classification.

#### Labeling



Symbol :

Signal Word: **WARNING**

Skin Corrosion / Irritation: Skin Irrit. 2  
Serious Eye Damage / Eye Irritation: Eye Irrit. 2

### 2.2 Label Elements

#### Labelling according to Regulation (EC) No. 1272/2008

The substance is classified and labelled according to the CLP Regulation.

#### Hazard Pictograms



GHS07

Signal Word: **WARNING**

#### Hazard Statements

H315: Causes skin irritation.  
H319: Causes serious eye irritation.

#### Precautionary Statements:

#### Prevention:

P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P264: Wash with excess of water and soap thoroughly after handling.  
P270: Do not eat, drink or smoke when using this product.  
P273: Avoid release to the environment.

#### Response:

P305 + P351 + P338: IF IN EYES: Rinse continuously with water for several minutes.  
Remove contact lenses if present and easy to do – continue rinsing.  
P321: Specific treatment (see on this label).  
P362: Take off contaminated clothing and wash before reuse.

#### Disposal:

P501: Dispose of contents/container to follow the regional regulation.

## 2.3 Other Hazards

May cause long lasting harmful effects to aquatic life.

**Product classification and labelling according to Directive 67/548/EEC, European Dangerous Preparations Directive (1999/45/EC), European Regulation 648/2004 and their amendments.**

Symbol: Xi



Irritant (Xi)

### Risk Phrases (R-phrases):

R36/38: Irritating to eyes and skin.

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### Safety Phrases (S-phrases):

S2 Keep out of the reach of children.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28 After contact with skin, wash immediately with plenty of water.

S61 Avoid release to the environment. Refer to special instructions and to Material Safety Data Sheets (MSDS).

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Chemical Composition:

Ingredients	CAS Number	Proportion	Hazard Code(s)*
Sulphamic Acid	5329-14-6	50-95%	H315; H319; H412.
Components which do not contribute to the classification of the product	-	5-50%	-

\*See section 16 for the full text of the Hazard Code(s) declared above.

Occupational Exposure Limits, if available, are listed in section 8.

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled**

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

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

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

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

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and

skin., Symptoms and signs of poisoning are:, burning sensation, Cough, wheezing, laryngitis, Shortness of

breath, Headache, Nausea, Vomiting, Inhalation may provoke the following symptoms:, spasm, inflammation and edema of the bronchi, spasm, inflammation and edema of the larynx, Aspiration or inhalation may cause chemical pneumonitis.

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

No data available.

**5. FIRE-FIGHTING MEASURES****5.1 Extinguishing media****Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

nitrogen oxides (NO<sub>x</sub>), Sulphur oxides.

**5.3 Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**5.4 Further information**

No data available.

**6. ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**6.2 Environmental precautions**

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

### **6.3 Methods and materials for containment and cleaning up**

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

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

For disposal see section 13.

## **7. HANDLING AND STORAGE**

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

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

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

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

### **7.3 Specific end uses**

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

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

**Name of Substance: Descaler Powder**

### **8.1 Control parameters**

8.1.1 Occupational exposure limits: Not listed

8.1.2 Additional exposure limits under the conditions of use: Not available.

### **8.2 Exposure controls**

#### **8.2.1 Appropriate engineering controls**

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Use adequate ventilation to keep airborne concentrations low.

#### **8.2.2 Individual protection measures, such as personal protective equipment**

Eye/face protection: Wear chemical splash goggles.

Hand protection: Wear appropriate gloves to prevent skin exposure.

Body protection: Wear suitable protective clothing to prevent skin exposure.

Respiratory protection: Avoid breathing dust. In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards: Wear suitable protective clothing to prevent heat.

#### **8.2.3 Environmental exposure controls**

Avoid discharge into the environment. According to local regulations, Federal and official regulations.

### **Industrial Hygiene**

Change contaminated clothing. Application of skin-protective barrier cream when recommended.

Wash your hands after working with this product.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

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

#### 9.1.1. Appearance

<b>Physical State:</b>	Powder
<b>Color:</b>	Reddish
<b>Odor:</b>	Odorless

#### 9.1.2. Basic data

<b>Boiling Point Range:</b>	Not Available
<b>Melting Point Range:</b>	<205°C (decomposes)
<b>Solubility:</b>	Moderate, slow reaction
<b>pH Value (10% solution)</b>	1
<b>Flash Point:</b>	Not Applicable
<b>Autoignition Temperature:</b>	Non Combustible
<b>Lower Explosion Limit (vol %):</b>	Not Available
<b>Upper Explosion Limit (vol %):</b>	Not Available
<b>Specific gravity:</b>	1.25 gr/cm <sup>3</sup> at 15 <sup>0</sup> C
<b>9.2 Other Information:</b>	No further relevant information available.

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Formation of flammable gases:

Remarks: Forms no flammable gases in the presence of water.

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

## 10.2 Chemical stability

Stable under normal temperatures and pressures.

## 10.3 Possibility of hazardous reactions

No dangerous reactions known.

## 10.4 Conditions to avoid

Incompatible materials. Excess heat.

## 10.5 Incompatible materials

Reaction with: Alkali; Amines; Ammonia; Chlorine; Hydrochloric acid; Sulphuric acid; Oxidising agents, strong; Nitrogen oxides (NO<sub>x</sub>).

## 10.6 Hazardous decomposition products

Decomposition products: Ammonia; Sulphur oxides (SO<sub>x</sub>); Nitrogen oxides (NO<sub>x</sub>).

# 11. TOXICOLOGICAL INFORMATION

## 11.1 Information on toxicological effects

### Name of Substance: Sulphamic Acid

#### Acute toxicity

LD50 Oral - rat - 3.160 mg/kg

LD50 Oral - mouse - 1.312 mg/kg

Remarks: Behavioural: Excitement. Behavioural: Altered sleep time (including change in righting reflex).

LD50 Oral - guinea pig - 1.050 mg/kg

Remarks: Behavioural: Excitement. Behavioural: Altered sleep time (including change in righting reflex).

#### Skin corrosion/irritation

Skin - rabbit - Skin irritation.

Remarks: Moderate skin irritation.

Skin - Human - Mild skin irritation.

Skin - rabbit - Severe skin irritation - 24 h.

#### Serious eye damage/eye irritation

Eyes - rabbit - Moderate eye irritation.

Eyes - rabbit - Severe eye irritation - 24 h.

#### Respiratory or skin sensitization

No data available.

#### Germ cell mutagenicity

No data available.

#### Carcinogenicity

IARC:

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

#### Reproductive toxicity

No data available.

**Specific target organ toxicity - single exposure**

No data available.

**Specific target organ toxicity - repeated exposure**

No data available.

**Aspiration hazard**

No data available.

**Potential health effects**

**Inhalation:** May be harmful if inhaled. Causes respiratory tract irritation.

**Ingestion:** May be harmful if swallowed.

**Skin:** May be harmful if absorbed through skin. Causes skin irritation.

**Eyes:** Causes eye burns.

**Signs and Symptoms of Exposure**

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

Symptoms and signs of poisoning are: burning sensation, cough, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting.

Inhalation may provoke the following symptoms:, spasm, inflammation and oedema of the bronchi, spasm, inflammation and oedema of the larynx.

Aspiration or inhalation may cause chemical pneumonitis.

**Additional Information**

RTECS: Not available

<b>12. ECOLOGICAL INFORMATION</b>
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**Name of Substance: Sulphamic Acid****12.1. Toxicity**

Acute toxicity		Time	Species	Method	Remarks
LC50	70.3 mg/L	96h	<i>Pimephales promelas</i>	equivalent or similar to OECD TG 203(Fish, Acute Toxicity Test)	2 (reliable with restrictions) key study experimental result
EC50	71.6 mg/L	24h	<i>Daphnia magna</i>	OECD TG 202 (Daphnia sp. Acute Immobilization Test)	1 (reliable without restriction) key study experimental result
EC50	71.6 mg/L	48h	<i>Daphnia magna</i>	OECD TG 202 (Daphnia sp. Acute Immobilization Test)	1 (reliable without restriction) key study experimental result
EC50	48 mg/L	72h	<i>Desmodemus subspicatus</i> (algae)	OECD TG 201 (Alga, Growth Inhibition Test)	1 (reliable without restriction) key study experimental result



## 12.2. Persistence and degradability

Methods for the determination of biodegradability are not applicable to inorganic substances.

Biochemical oxygen demand (BOD): Not applicable.

Chemical oxygen demand (COD): Not applicable.

ThOD: Not applicable.

BOD (% of ThOD): Not applicable.

## 12.3. Bioaccumulative potential

Log Pow: 0.10 (Experimental value).

Bioaccumulative potential: Low potential for bioaccumulation (Log Kow < 4).

## 12.4. Mobility in soil (and other compartments if available)

Ecology - soil: Toxic to flora.

## 12.5. Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not fulfil the criteria for PBT (Persistent/bioaccumulative/toxic) and vPvB (very persistent/very bioaccumulative).

## 12.6. Additional information

Do not allow to enter waters, waste water or soil.

No ecological problems are to be expected when the product is handled and used with due care and attention.

The product is not harmful to the marine environment as per paragraphs 1.7.4 and 1.7.5. of Resolution MEPC. 219 (63) /Annex 24 - 2012 adoption of IMO's MARPOL Annex V.

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

#### Contaminated packaging

Dispose of as unused product.

## 14. TRANSPORT INFORMATION

### 14.1 Proper Shipping Name: Sulphamic Acid

### 14.2 LAND TRANSPORT

UN number : 2967

ADR: 8

RID : 8

### 14.3 SEA TRANSPORT

UN number: 2967

IMDG class: 8

IMDG packing group: III

EmS: F-A, S-B

## 14.4 AIR TRANSPORT

UN number: 2967  
IATA/ICAO class: 8 Packing group: III

## 15. REGULATORY INFORMATION

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

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

### 15.2 Chemical Safety Assessment

A CSA has been carried out for the raw materials in this product, from the raw materials manufacturers (when needed to be carried out).

## 16. OTHER INFORMATION

### 16.1 Full text of Hazard Code(s) referred in Section 3:

H315: Causes skin irritation.  
H319: Causes serious eye irritation.  
H412: Harmful to aquatic life with long lasting effects.

### 16.2 Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road).  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail).  
IMDG: International Maritime Code for Dangerous Goods.  
IATA: International Air Transport Association.  
ICAO: International Civil Aviation Organization.  
bw: Body weight.  
Carc.: Carcinogenicity.  
CAS number: Chemical Abstracts Service number.  
CLP: Classification Labelling Packaging Regulation.  
CSA: Chemical Safety Assessment.  
CSR: Chemical Safety Report.  
DNEL: Derived No Effect Level.  
dw: Dry weight.  
EC number: EINECS and ELINCS number.  
EC: European Commission.  
EC50: Half maximal effective concentration.  
EINECS: European Inventory of Existing Commercial Chemical Substances.  
ELINCS: European List of Notified Chemical Substances.  
EmS: Emergency Schedule.  
ERC: Environmental Release Category.  
ES: Exposure scenario.  
food: oral feed.  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals.

Irrit.: Irritation.  
LC50: Lethal concentration, 50 %.  
LD50: Median Lethal dose.  
LOAEC: Lowest Observed Adverse Effect Concentration.  
LOAEL: Lowest Observed Adverse Effect Level.  
MK value: Maximum Concentration value.  
NCO: An international corporation that provides customer service contracting.  
NOAEC: No Observed Adverse Effect Concentration.  
NOAEL: No Observed Adverse Effect Level.  
NOEC: No Observed Effect Concentration.  
OECD: Organisation for Economic Cooperation and Development.  
PBT: Persistent, Bioaccumulative and Toxic.  
PNEC: Predicted No Effect Concentration.  
PROC: Process category.  
REACH: The Registration, Evaluation, Authorisation and Restriction of Chemicals.  
Resp.: Respiratory.  
Sens.: Sensitization.  
STEL value: Short Term Exposure Limit value.  
STOT RE: Specific target organ toxicity — repeated exposure.  
STOT SE: Specific target organ toxicity — single exposure.  
STOT: Specific Target Organ Toxicity.  
STP: Sewage Treatment Plant.  
SU: Sector of use.  
Tox.: Toxicity.  
TWA value: Time Weighted Average value.  
vPvB: Very Persistent and Very Bioaccumulative.

### **16.3 Notice to reader**

All information, instructions and statements contained in this Material Safety Data Sheet are compiled in accordance with European Directives, corresponding national legislation and on the basis of information given by our suppliers.

The information disclosed in this Material Safety Data Sheet (which supersedes all previous versions) is believed to be correct, at the date of issue, to the best of our current knowledge and experience. It only relates to the specific product designated herein and it may not be valid when said product is used in combination with any other products or in any processed form, unless specified in the text. This document aims to provide the necessary health and safety information of the product and is not to be considered a warranty or quality specification. It is the responsibility of the recipient of this Material Safety Data Sheet to ensure that information given here is read and understood by all who use, handle, dispose of or in any way come in contact with the product.

Also, it is the responsibility of the user to comply with local legislation relating to safety, health, environment and waste management. Data and information provided concerning the product are informative, exclusively presented to the customer.