

## Thallium(I) sulfate

88290-500G

Version 1.1

Revision Date 30.04.2017

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

#### 1.1. Product identifier

Product name : Thallium(I) sulfate  
SDS-number : 000000020547  
Type of product : Substance  
Remarks : SDS according to Art. 31 of Regulation (EC) 1907/2006.  
Chemical name : dithallium sulphate; thallic sulphate  
Index-No. : 081-003-00-4  
REACH Registration Number : no data available

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

Use of the Substance/Mixture : Laboratory chemicals  
Uses advised against : none

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

|  |  |  |
|--|--|--|
| Company                                  | : Honeywell Specialty Chemicals Seelze GmbH<br>Wunstorfer Straße 40<br>30926 Seelze<br>Germany | Honeywell International, Inc.<br>115 Tabor Road<br>Morris Plains, NJ 07950-2546<br>USA |
| Telephone                                | : (49) 5137-999 0  |  |
| Telefax                                  | : (49) 5137-999 123  |  |
| For further information, please contact: | : PMTEU Product Stewardship:<br>SafetyDataSheet@Honeywell.com                                  |  |

#### 1.4. Emergency telephone number

Emergency telephone number : +1-703-527-3887 (ChemTrec-Transport)  
+1-303-389-1414 (Medical)  
Country based Poison Control Center : see chapter 15.1

### SECTION 2: Hazards identification

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### 2.1. Classification of the substance or mixture

#### REGULATION (EC) No 1272/2008

Acute toxicity Category 2 - Oral

H300 Fatal if swallowed.

Skin irritation Category 2

H315 Causes skin irritation.

Specific target organ toxicity - repeated exposure Category 1

H372 Causes damage to organs through prolonged or repeated exposure.

Chronic aquatic toxicity Category 2

H411 Toxic to aquatic life with long lasting effects.

### 2.2. Label elements

#### REGULATION (EC) No 1272/2008

Hazard pictograms

:



Signal word

:

Danger

Hazard statements

:

H300

Fatal if swallowed.

H315

Causes skin irritation.

H372

Causes damage to organs through prolonged or repeated exposure.

H411

Toxic to aquatic life with long lasting effects.

Precautionary statements

:

P260

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

P273

Avoid release to the environment.

P280

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

P301 + P330 + P331

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P302 + P352

IF ON SKIN: Wash with plenty of soap and water.

P308 + P313

IF exposed or concerned: Get medical advice/ attention.

### 2.3. Other hazards

None known.

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

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| Chemical name                         | CAS-No.<br>Index-No.<br>REACH Registration<br>Number<br>EC-No. | Classification 1272/2008  | Concentration | Remarks |
|---------------------------------------|--|---|---------------|---------|
| dithallium sulphate; thallic sulphate | 7446-18-6<br>081-003-00-4<br>231-201-3                         | Acute Tox. 2; H300<br>Skin Irrit. 2; H315<br>STOT RE 1; H372<br>Aquatic Chronic 2; H411 | 100 %         | 1*      |

1\* - For specific concentration limits see Annexes of 1272/2008

### 3.2. Mixture

Not applicable

Occupational Exposure Limit(s), if available, are listed in Section 8.  
For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### *General advice:*

Show this safety data sheet to the doctor in attendance. First aider needs to protect himself. Move out of dangerous area.

#### *Inhalation:*

If inhaled, remove to fresh air. Call a physician immediately.

#### *Skin contact:*

After contact with skin, wash immediately with plenty of soap and water. Call a physician immediately.

#### *Eye contact:*

Rinse thoroughly with plenty of water, also under the eyelids. Protect unharmed eye. Call a physician immediately.

#### *Ingestion:*

Do not induce vomiting without medical advice. Rinse mouth. Get medical attention immediately.

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

no data available

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

no data available

See Section 11 for more detailed information on health effects and symptoms.

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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

*Suitable extinguishing media:*

Water spray jet

Dry powder

Foam

Carbon dioxide (CO<sub>2</sub>)

*Extinguishing media which shall not be used for safety reasons:*

High volume water jet

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

Pyrolysis products

Toxic metal oxide fumes

Sulphur oxides

The product itself does not burn.

Do not use a solid water stream as it may scatter and spread fire.

#### 5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit.

No unprotected exposed skin areas.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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### SECTION 6: Accidental release measures

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

Wear personal protective equipment. Unprotected persons must be kept away.

#### 6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

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

Spilled product should be disposed of in accordance with all applicable government regulations.

Use mechanical handling equipment.

Pick for disposal in tightly closed containers

Isolate the affected area. Confine entry into the affected area to those persons properly protected (see Section 8 of MSDS).

#### 6.4. Reference to other sections

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For personal protection see section 8.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

*Advice on safe handling:*

Avoid exposure - obtain special instructions before use. Wear personal protective equipment. Container may be opened only under exhaust ventilation hood. Use product only in closed system. Plan first aid action before beginning work with this product. The danger areas must be delimited and identified using relevant warning and safety signs. All processes must be supervised by specialists or authorised personnel.

*Advice on protection against fire and explosion:*

No special precautions required. Normal measures for preventive fire protection.

*Hygiene measures:*

Keep working clothes separately. Separate rooms are required for washing, showering and changing clothes. When using, do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing. When using do not eat or drink. When using do not smoke.

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

*Further information on storage conditions:*

Store in original container. Do not leave vessels/containers open Containers should be protected against falling down. Avoid product residues in/on containers. Keep locked up or in an area accessible only to qualified or authorised persons.

*German storage class:*

Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

#### 7.3. Specific end use(s)

no additional data available

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### *Occupational exposure limits:*

| Components                            | Basis /<br>Value type | Value /<br>Form of exposure | Exceeding<br>Factor | Remarks                              |
|---------------------------------------|-----------------------|-----------------------------|---------------------|--------------------------------------|
| dithallium sulphate; thallic sulphate | EH40 WEL<br>TWA       | 0,1 mg/m3<br><br>as TI      |                     |                                      |
| dithallium sulphate; thallic sulphate | EH40 WEL<br>SKIN_DES  | <br><br>as TI               |                     | Can be absorbed<br>through the skin. |

TWA - Time weighted average  
SKIN\_DES - Skin designation:

#### DNEL/ PNEC-Values

No DNEL-data available.

No PNEC data available.

#### 8.2. Exposure controls

##### **Occupational exposure controls**

The Personal Protective Equipment must be in accordance with EN standards:respirator EN 136, 140, 149; safety glasses EN 166; protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, safety shoes EN-ISO 20345.

##### **Engineering measures**

Use product only in closed system.

Perform filling operations only at stations with exhaust ventilation facilities.

##### **Personal protective equipment**

###### *Respiratory protection:*

In the case of dust or aerosol formation use respirator with an approved filter.

###### *Hand protection:*

Glove material: Nitrile rubber

Break through time: > 480 min

Glove thickness: 0,11 mm

Dermatril®740

Gloves must be inspected prior to use.

Replace when worn.

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Remarks: Supplementary note: The specifications are based on information and tests from similar substances by analogy.

Due to varying conditions ( e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374.

Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer recommends to use the chemical protective glove in practice not longer than 50% of the recommended permeation time.

Manufacturer's directions for use should be observed because of great diversity of types .

Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de

### *Eye protection:*

Tightly fitting safety goggles

### *Skin and body protection:*

Wear suitable protective equipment.

complete suit protecting against chemicals

Lab coat

### **Environmental exposure controls**

Handle in accordance with local environmental regulations and good industrial practices.

## **SECTION 9: Physical and chemical properties**

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

|                             |   |  |
|-----------------------------|---|--|
| Form                        | : | solid  |
| Colour                      | : | colourless   |
| Odour                       | : | odourless  |
| molecular weight            | : | 504,83 g/mol   |
| Melting point/range         | : | 632 °C   |
| Boiling point/boiling range | : | Not applicable<br>Decomposes on heating.                 |
| Flash point                 | : | Not applicable   |
| Flammability (solid, gas)   | : | The product is not flammable.                            |
| Ignition temperature        | : | Not applicable   |
| Auto-ignition temperature   | : | not auto-flammable                                       |
| Oxidizing properties        | : | The substance or mixture is not classified as oxidizing. |

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|  |                          |
|--|--------------------------|
| Lower explosion limit                  | : Not applicable         |
| Upper explosion limit                  | : Not applicable         |
| Vapour pressure                        | : negligible             |
| Density                                | : 6,77 g/cm <sup>3</sup> |
| Bulk density                           | : no data available      |
| Viscosity, dynamic                     | : Not applicable         |
| Viscosity, kinematic                   | : Not applicable         |
| pH                                     | : no data available      |
| Water solubility                       | : 48,7 g/l<br>at 20 °C   |
| Partition coefficient: n-octanol/water | : no data available      |

### 9.2 Other Information

no additional data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No decomposition if stored and applied as directed.

### 10.2. Chemical stability

Stable at ambient temperature.

### 10.3. Possibility of hazardous reactions

Heating above the decomposition temperature

### 10.4. Conditions to avoid

Avoid dust formation.

### 10.5. Incompatible materials

Strong acids and strong bases



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### 10.6. Hazardous decomposition products

Risk of formation of toxic pyrolysis products.  
Sulphur oxides  
Toxic metal compounds

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

*Acute oral toxicity:*

LD50

Species: Rat

Value: 16 mg/kg

*Acute dermal toxicity:*

no data available

*Acute inhalation toxicity:*

no data available

*Skin irritation:*

Classification based on Annex VI of regulation 1272/2008/EC.

*Eye irritation:*

no data available

*Respiratory or skin sensitisation:*

no data available

*Aspiration hazard:*

no data available

*Other information:*

no data available

## SECTION 12: Ecological information

### 12.1. Toxicity

*Toxicity to fish:*

Classification based on Annex VI of regulation 1272/2008/EC.

*Toxicity to aquatic plants:*

Classification based on Annex VI of regulation 1272/2008/EC.

*Toxicity to aquatic invertebrates:*

Classification based on Annex VI of regulation 1272/2008/EC.

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### 12.2. Persistence and degradability

no data available

### 12.3. Bioaccumulative potential

no data available

### 12.4. Mobility in soil

no data available

### 12.5. Results of PBT and vPvB assessment

no data available

### 12.6. Other adverse effects

The methods for determining biodegradability are not applicable to inorganic substances.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### *Product:*

Dispose according to legal requirements.

#### *Packaging:*

Legal requirements are to be considered in regard of reuse or disposal of used packaging materials

#### *Further information:*

Provisions relating to waste:

EC Directive 2006/12/EC; 2008/98/EEC

Regulation No. 1013/2006

For personal protection see section 8.

## SECTION 14: Transport information

### ADR/RID

|                           |   |  |
|---------------------------|---|--|
| UN Number                 | : | 1707   |
| Description of the goods  | : | THALLIUM COMPOUND, N.O.S.<br>(DITHALLIUM SULPHATE) |
| Class                     | : | 6.1  |
| Packaging group           | : | II   |
| Classification Code       | : | T5   |
| Hazard Identification     | : | 60   |
| Number                    | : |  |
| ADR/RID-Labels            | : | 6.1  |
| Environmentally hazardous | : | yes  |

### IATA

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UN Number : 1707  
Description of the goods : Thallium compound, n.o.s.  
(Dithallium sulphate)  
Class : 6.1  
Packaging group : II  
Hazard Labels : 6.1

### IMDG

UN Number : 1707  
Description of the goods : THALLIUM COMPOUND, N.O.S.  
(DITHALLIUM SULPHATE)  
Class : 6.1  
Packaging group : II  
Hazard Labels : 6.1  
EmS Number : F-A, S-A  
Marine pollutant : yes

## SECTION 15: Regulatory information

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

#### Poison Control Center

| Country        | Phone Number                 |
|----------------|------------------------------|
| Austria        | +4314064343                  |
| Belgium        | 070 245245                   |
| Bulgaria       | (+35929154233                |
| Croatia        | (+3851)23-48-342             |
| Cyprus         | no data available            |
| Czech Republic | +420224919293; +420224915402 |
| Denmark        | 82121212                     |
| Estonia        | 16662; (+372)6269390         |
| Finland        | 9471977                      |
| France         | +33(0)145425959              |
| Greece         | no data available            |
| Hungary        | (+36-80)201-199              |
| Iceland        | 5432222                      |
| Ireland        | +353(1)8092166               |
| Italy          | no data available            |
| Germany        | Berlin : 030/19240           |
|                | Bonn : 0228/19240            |

| Country         | Phone Number                              |
|-----------------|---|
| Latvia          | +37167042473                              |
| Liechtenstein   | no data available                         |
| Lithuania       | +370532362052                             |
| Luxembourg      | 070245245; (+352)80002-5500               |
| Malta           | no data available                         |
| Netherlands     | 030-2748888                               |
| Norway          | 22591300                                  |
| Poland          | no data available                         |
| Portugal        | 808250143                                 |
| Romania         | no data available                         |
| Slovakia (NTIC) | +421 2 54 774 166                         |
| Slovenia        | no data available                         |
| Spain           | +34915620420                              |
| Sweden          | 112 (begär Giftinformation); +46104566786 |
| United Kingdom  | no data available                         |

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|  |                        |
|--|------------------------|
|  | Erfurt : 0361/730730   |
|  | Freiburg : 0761/19240  |
|  | Göttingen : 0551/19240 |
|  | Homburg : 06841/19240  |
|  | Mainz : 06131/19240    |
|  | Munich : 089/19240     |

### Other inventory information

US. Toxic Substances Control Act  
On TSCA Inventory

Australia. Industrial Chemical (Notification and Assessment) Act  
On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)  
All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List  
On the inventory, or in compliance with the inventory

Korea. Toxic Chemical Control Law (TCCL) List  
On the inventory, or in compliance with the inventory

Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act  
On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances  
On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand  
On the inventory, or in compliance with the inventory

### 15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

### Text of H-statements referred to under heading 3

#### Further information

All directives and regulations refer to amended versions.  
Vertical lines in the left hand margin indicate a relevant amendment from the previous version.

Abbreviations:

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EC European Community  
CAS Chemical Abstracts Service  
DNEL Derived no effect level  
PNEC Predicted no effect level  
vPvB Very persistent and very bioaccumulative substance  
PBT Persistent, bioaccumulative and toxic substance

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user.

This information should not constitute a guarantee for any specific product properties.

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