



# SAFETY DATA SHEET

**MATERION**

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

### 1.1. Product identifier

**Name of the substance** Cadmium Sulphate 3CdSO4-8H2O  
**Identification number** 048-009-00-9 (Index number)  
**Registration number** -  
**Document number** 10B  
**Synonyms** None.  
**Materion Code** 10B  
**Issue date** 26-May-2015  
**Revision date** 11-January-2018

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

#### Supplier

**Company name** Materion Advanced Chemicals Inc.  
**Address** 407 N. 13th Street  
1316 W. St. Paul Avenue  
Milwaukee, WI 53233  
United States  
**Division** Milwaukee  
**Telephone** 414.212.0257  
**e-mail** advancedmaterials@materion.com  
**Contact person** Laura Hamilton

### 1.4. Emergency telephone number

**Supersedes date** 26-May-2015  
**Version number** 02

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

**Identified uses** Not available.  
**Uses advised against** None known.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

The substance has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

#### Classification according to Regulation (EC) No 1272/2008 as amended

##### Health hazards

|   |             |  |
|---|-------------|--|
| Acute toxicity, oral                                | Category 3  | H301 - Toxic if swallowed.<br>H301 - Toxic if swallowed.               |
| Acute toxicity, inhalation                          | Category 2  | H330 - Fatal if inhaled.   |
| Germ cell mutagenicity                              | Category 1B | H340 - May cause genetic defects.                                      |
| Carcinogenicity                                     | Category 1B | H350 - May cause cancer.<br>H350 - May cause cancer.                   |
| Reproductive toxicity (fertility, the unborn child) | Category 1B | H360FD - May damage fertility. May damage the unborn child.            |
| Specific target organ toxicity - repeated exposure  | Category 1  | H372 - Causes damage to organs through prolonged or repeated exposure. |

##### Environmental hazards

|  |            |  |
|--|------------|--|
| Hazardous to the aquatic environment, acute aquatic hazard     | Category 1 | H400 - Very toxic to aquatic life.                           |
| Hazardous to the aquatic environment, long-term aquatic hazard | Category 1 | H410 - Very toxic to aquatic life with long lasting effects. |

## Hazard summary

Fatal if inhaled. Toxic if swallowed. May cause cancer. Causes damage to organs through prolonged or repeated exposure. May cause cancer. May cause reproductive effects. May cause genetic defects. Prolonged exposure may cause chronic effects. Dangerous for the environment if discharged into watercourses.

## 2.2. Label elements

### Label according to Regulation (EC) No. 1272/2008 as amended

Contains:

Cadmium Sulphate

Hazard pictograms



Signal word

Danger

Hazard statements

|        |   |
|--------|---|
| H301   | Toxic if swallowed.   |
| H301   | Toxic if swallowed.   |
| H350   | May cause cancer.   |
| H330   | Fatal if inhaled.   |
| H340   | May cause genetic defects.                                      |
| H350   | May cause cancer.   |
| H360FD | May damage fertility. May damage the unborn child.              |
| H372   | Causes damage to organs through prolonged or repeated exposure. |
| H400   | Very toxic to aquatic life.                                     |
| H410   | Very toxic to aquatic life with long lasting effects.           |

### Precautionary statements

Prevention

|      |  |
|------|--|
| P201 | Obtain special instructions before use.                                    |
| P202 | Do not handle until all safety precautions have been read and understood.  |
| P260 | Do not breathe dust/fume.  |
| P264 | Wash thoroughly after handling.  |
| P270 | Do not eat, drink or smoke when using this product.                        |
| P271 | Use only outdoors or in a well-ventilated area.                            |
| P273 | Avoid release to the environment.  |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P284 | Wear respiratory protection.   |

Response

|             |  |
|-------------|--|
| P301 + P310 | IF SWALLOWED: Immediately call a POISON CENTRE/doctor.                     |
| P304 + P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P308 + P313 | IF exposed or concerned: Get medical advice/attention.                     |
| P320        | Specific treatment is urgent (see this label).                             |
| P330        | Rinse mouth.   |
| P391        | Collect spillage.  |

Storage

|             |  |
|-------------|--|
| P403 + P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P405        | Store locked up.   |

Disposal

|      |   |
|------|---|
| P501 | Dispose of contents/container in accordance with local/regional/national/international regulations. |
|------|---|

Supplemental label information

None.

## 2.3. Other hazards

None known.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

General information

| Chemical name          | %   | CAS-No. / EC No.        | REACH Registration No. | Index No.    | Notes |
|------------------------|---|-------------------------|------------------------|--------------|-------|
| Cadmium Sulphate       | 90 - 100  | 10124-36-4<br>233-331-6 | -                      | 048-009-00-9 |       |
| <b>Classification:</b> | Acute Tox. 3;H301, Acute Tox. 2;H330, Muta. 1B;H340, Carc. 1B;H350, Repr. 1B;H360FD, STOT RE 1;H372, Aquatic Acute 1;H400, Aquatic Chronic 1;H410 |                         |                        |              |       |

## List of abbreviations and symbols that may be used above

CLP: Regulation No. 1272/2008.

DSD: Directive 67/548/EEC.

M: M-factor

vPvB: very persistent and very bioaccumulative substance.

PBT: persistent, bioaccumulative and toxic substance.

#: This substance has been assigned Community workplace exposure limit(s).

**Composition comments** The full text for all R- and H-phrases is displayed in section 16.

## SECTION 4: First aid measures

**General information** IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

### 4.1. Description of first aid measures

**Inhalation** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control centre immediately.

**Skin contact** Wash off with soap and water. Get medical attention if irritation develops and persists.

**Eye contact** Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.

**Ingestion** Call a physician or poison control centre immediately. Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

**4.2. Most important symptoms and effects, both acute and delayed** Prolonged exposure may cause chronic effects.

**4.3. Indication of any immediate medical attention and special treatment needed** Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

## SECTION 5: Firefighting measures

**General fire hazards** No unusual fire or explosion hazards noted.

### 5.1. Extinguishing media

**Suitable extinguishing media** Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media** None known.

**5.2. Special hazards arising from the substance or mixture** During fire, gases hazardous to health may be formed.

### 5.3. Advice for firefighters

**Special protective equipment for firefighters** Wear suitable protective equipment.

**Special firefighting procedures** Use water spray to cool unopened containers. Water runoff can cause environmental damage.

**Specific methods** Use standard firefighting procedures and consider the hazards of other involved materials.

## SECTION 6: Accidental release measures

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

**For non-emergency personnel** Immediately evacuate personnel to safe areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe dust. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

**For emergency responders** Keep unnecessary personnel away.

**6.2. Environmental precautions** Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

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

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Stop the flow of material, if this is without risk. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Prevent product from entering drains. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

### 6.4. Reference to other sections

Not available.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimise dust generation and accumulation. Do not breathe dust. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains. Observe good industrial hygiene practices.

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

Store locked up. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place.

### 7.3. Specific end use(s)

Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### Austria. TRK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001

| Material                          | Type | Value                   | Form                |
|-----------------------------------|------|-------------------------|---------------------|
| Cadmium Sulphate (CAS 10124-36-4) | STEL | 0,06 mg/m <sup>3</sup>  | Inhalable fraction. |
|                                   | TWA  | 0,015 mg/m <sup>3</sup> | Inhalable fraction. |

##### Belgium. Exposure Limit Values.

| Material                          | Type | Value                   | Form                  |
|-----------------------------------|------|-------------------------|-----------------------|
| Cadmium Sulphate (CAS 10124-36-4) | TWA  | 0,01 mg/m <sup>3</sup>  | Inhalable particles.  |
|                                   |      | 0,002 mg/m <sup>3</sup> | Respirable particles. |

##### Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

| Material                          | Type | Value                  |
|-----------------------------------|------|------------------------|
| Cadmium Sulphate (CAS 10124-36-4) | TWA  | 0,05 mg/m <sup>3</sup> |

##### Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09

| Material                          | Type | Value                   |
|-----------------------------------|------|-------------------------|
| Cadmium Sulphate (CAS 10124-36-4) | MAC  | 0,025 mg/m <sup>3</sup> |

##### Czech Republic. OELs. Government Decree 361

| Material                          | Type    | Value                  |
|-----------------------------------|---------|------------------------|
| Cadmium Sulphate (CAS 10124-36-4) | Ceiling | 0,1 mg/m <sup>3</sup>  |
|                                   | TWA     | 0,05 mg/m <sup>3</sup> |

##### Denmark. Exposure Limit Values

| Material                          | Type | Value                   |
|-----------------------------------|------|-------------------------|
| Cadmium Sulphate (CAS 10124-36-4) | TLV  | 0,005 mg/m <sup>3</sup> |

**Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001)**

| <b>Material</b>                      | <b>Type</b> | <b>Value</b> | <b>Form</b>      |
|--------------------------------------|-------------|--------------|------------------|
| Cadmium Sulphate (CAS<br>10124-36-4) | TWA         | 0,05 mg/m3   | Total dust.      |
|                                      |             | 0,01 mg/m3   | Respirable dust. |

**Finland. Workplace Exposure Limits**

| <b>Material</b>                      | <b>Type</b> | <b>Value</b> |
|--------------------------------------|-------------|--------------|
| Cadmium Sulphate (CAS<br>10124-36-4) | TWA         | 0,02 mg/m3   |

**France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984**

| <b>Material</b>                      | <b>Type</b> | <b>Value</b> |
|--------------------------------------|-------------|--------------|
| Cadmium Sulphate (CAS<br>10124-36-4) | VME         | 0,05 mg/m3   |

**Greece. OELs (Decree No. 90/1999, as amended)**

| <b>Material</b>                      | <b>Type</b> | <b>Value</b> |
|--------------------------------------|-------------|--------------|
| Cadmium Sulphate (CAS<br>10124-36-4) | STEL        | 0,1 mg/m3    |
|                                      | TWA         | 0,025 mg/m3  |

**Hungary. OELs. Joint Decree on Chemical Safety of Workplaces**

| <b>Material</b>                      | <b>Type</b> | <b>Value</b> |
|--------------------------------------|-------------|--------------|
| Cadmium Sulphate (CAS<br>10124-36-4) | Ceiling     | 0,015 mg/m3  |

**Iceland. OELs. Regulation 154/1999 on occupational exposure limits**

| <b>Material</b>                      | <b>Type</b> | <b>Value</b> | <b>Form</b>    |
|--------------------------------------|-------------|--------------|----------------|
| Cadmium Sulphate (CAS<br>10124-36-4) | TWA         | 0,01 mg/m3   | Dust and fume. |

**Ireland. Occupational Exposure Limits**

| <b>Material</b>                      | <b>Type</b> | <b>Value</b> | <b>Form</b>          |
|--------------------------------------|-------------|--------------|----------------------|
| Cadmium Sulphate (CAS<br>10124-36-4) | TWA         | 0,01 mg/m3   |                      |
|                                      |             | 0,002 mg/m3  | Respirable fraction. |

**Italy. Occupational Exposure Limits**

| <b>Material</b>                      | <b>Type</b> | <b>Value</b> | <b>Form</b>          |
|--------------------------------------|-------------|--------------|----------------------|
| Cadmium Sulphate (CAS<br>10124-36-4) | TWA         | 0,01 mg/m3   |                      |
|                                      |             | 0,002 mg/m3  | Respirable fraction. |

**Lithuania. OELs. Limit Values for Chemical Substances, General Requirements**

| <b>Material</b>                      | <b>Type</b> | <b>Value</b> | <b>Form</b>          |
|--------------------------------------|-------------|--------------|----------------------|
| Cadmium Sulphate (CAS<br>10124-36-4) | TWA         | 0,05 mg/m3   | Inhalable fraction.  |
|                                      |             | 0,01 mg/m3   | Respirable fraction. |

**Netherlands. OELs (binding)**

| <b>Material</b>                      | <b>Type</b> | <b>Value</b> |
|--------------------------------------|-------------|--------------|
| Cadmium Sulphate (CAS<br>10124-36-4) | TWA         | 0,005 mg/m3  |

**Norway. Administrative Norms for Contaminants in the Workplace**

| <b>Material</b>                      | <b>Type</b> | <b>Value</b> |
|--------------------------------------|-------------|--------------|
| Cadmium Sulphate (CAS<br>10124-36-4) | TLV         | 0,05 mg/m3   |

**Ordinance of the Minister of Labour and Social Policy on 6 June 2014 on the maximum permissible concentrations and intensities of harmful health factors in the work environment, Journal of Laws 2014, item 817**

| Material                          | Type | Value                   | Form                 |
|-----------------------------------|------|-------------------------|----------------------|
| Cadmium Sulphate (CAS 10124-36-4) | TWA  | 0,01 mg/m <sup>3</sup>  | Inhalable fraction.  |
|                                   |      | 0,002 mg/m <sup>3</sup> | Respirable fraction. |

**Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)**

| Material                          | Type | Value                   | Form                 |
|-----------------------------------|------|-------------------------|----------------------|
| Cadmium Sulphate (CAS 10124-36-4) | TWA  | 0,01 mg/m <sup>3</sup>  |                      |
|                                   |      | 0,002 mg/m <sup>3</sup> | Respirable fraction. |

**Romania. OELs. Protection of workers from exposure to chemical agents at the workplace**

| Material                          | Type | Value                  | Form |
|-----------------------------------|------|------------------------|------|
| Cadmium Sulphate (CAS 10124-36-4) | TWA  | 0,05 mg/m <sup>3</sup> |      |

**Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)**

| Material                          | Type | Value                   | Form                     |
|-----------------------------------|------|-------------------------|--------------------------|
| Cadmium Sulphate (CAS 10124-36-4) | TWA  | 0,015 mg/m <sup>3</sup> | Dust/aerosol, inhalable. |

**Spain. Carcinogens and Mutagens with Limit Values (Table 2)**

| Material                          | Type | Value                   | Form                 |
|-----------------------------------|------|-------------------------|----------------------|
| Cadmium Sulphate (CAS 10124-36-4) | TWA  | 0,01 mg/m <sup>3</sup>  | Inhalable fraction.  |
|                                   |      | 0,002 mg/m <sup>3</sup> | Respirable fraction. |

**Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)**

| Material                          | Type | Value                   | Form             |
|-----------------------------------|------|-------------------------|------------------|
| Cadmium Sulphate (CAS 10124-36-4) | TWA  | 0,02 mg/m <sup>3</sup>  | Total dust.      |
|                                   |      | 0,005 mg/m <sup>3</sup> | Respirable dust. |

**Switzerland. SUVA Grenzwerte am Arbeitsplatz**

| Material                          | Type | Value                   | Form            |
|-----------------------------------|------|-------------------------|-----------------|
| Cadmium Sulphate (CAS 10124-36-4) | TWA  | 0,015 mg/m <sup>3</sup> | Inhalable dust. |

**UK. EH40 Workplace Exposure Limits (WELs)**

| Material                          | Type | Value                   | Form |
|-----------------------------------|------|-------------------------|------|
| Cadmium Sulphate (CAS 10124-36-4) | TWA  | 0,025 mg/m <sup>3</sup> |      |

**Biological limit values**

**France. Biological indicators of exposure (IBE) (National Institute for Research and Security (INRS, ND 2065)**

| Material                          | Value  | Determinant | Specimen            | Sampling Time |
|-----------------------------------|--------|-------------|---------------------|---------------|
| Cadmium Sulphate (CAS 10124-36-4) | 5 µg/g | Cadmium     | Creatinine in urine | *             |
|                                   | 5 µg/l | Cadmium     | Blood               | *             |

\* - For sampling details, please see the source document.

**Hungary. Chemical Safety at Workplace Ordinance Joint Decree No. 25/2000 (Annex 2): Permissible limit values of biological exposure (effect) indices**

| Material                          | Value       | Determinant | Specimen            | Sampling Time |
|-----------------------------------|-------------|-------------|---------------------|---------------|
| Cadmium Sulphate (CAS 10124-36-4) | 10 µg/l     | cadmium     | Blood               | *             |
|                                   | 0,01 mg/g   | cadmium     | Creatinine in urine | *             |
|                                   | 0,09 µmol/l | cadmium     | Blood               | *             |

**Hungary. Chemical Safety at Workplace Ordinance Joint Decree No. 25/2000 (Annex 2): Permissible limit values of biological exposure (effect) indices**

| Material | Value          | Determinant | Specimen            | Sampling Time |
|----------|----------------|-------------|---------------------|---------------|
|          | 0,01 µmol/mmol | cadmium     | Creatinine in urine | *             |

\* - For sampling details, please see the source document.

**Slovakia. BLVs (Biological Limit Value). Regulation no. 355/2006 concerning protection of workers exposed to chemical agents, Annex 2**

| Material                          | Value    | Determinant | Specimen            | Sampling Time |
|-----------------------------------|----------|-------------|---------------------|---------------|
| Cadmium Sulphate (CAS 10124-36-4) | 4,7 µg/g | Cadmium     | Creatinine in urine | *             |
|                                   | 7 µg/l   | Cadmium     | Urine               | *             |

\* - For sampling details, please see the source document.

**Spain. Biological Limit Values (VLBs), Occupational Exposure Limits for Chemical Agents, Table 4**

| Material                          | Value  | Determinant | Specimen            | Sampling Time |
|-----------------------------------|--------|-------------|---------------------|---------------|
| Cadmium Sulphate (CAS 10124-36-4) | 5 µg/g | Cadmio      | Creatinine in urine | *             |
|                                   | 5 µg/l | Cadmio      | Blood               | *             |

\* - For sampling details, please see the source document.

**Recommended monitoring procedures** Follow standard monitoring procedures.

**Derived no effect levels (DNELs)** Not available.

**Predicted no effect concentrations (PNECs)** Not available.

**8.2. Exposure controls**

**Appropriate engineering controls** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

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

**General information** Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

**Eye/face protection** If contact is likely, safety glasses with side shields are recommended.

**Skin protection**

**- Hand protection** Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

**- Other** Use personal protective equipment as required. Use of an impervious apron is recommended. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

**Respiratory protection** Wear positive pressure self-contained breathing apparatus (SCBA).

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

**Hygiene measures** Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**Environmental exposure controls** Contain spills and prevent releases and observe national regulations on emissions. Inform appropriate managerial or supervisory personnel of all environmental releases.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties****Appearance**

**Physical state** Solid.  
**Form** Solid.  
**Colour** Not available.

**Odour** Not available.

**Odour threshold** Not available.

|   |                          |
|---|--------------------------|
| <b>pH</b>   | Not available.           |
| <b>Melting point/freezing point</b>                 | 1000 °C (1832 °F)        |
| <b>Initial boiling point and boiling range</b>      | Not available.           |
| <b>Flash point</b>                                  | Not available.           |
| <b>Evaporation rate</b>                             | Not available.           |
| <b>Flammability (solid, gas)</b>                    | Not available.           |
| <b>Upper/lower flammability or explosive limits</b> |                          |
| <b>Flammability limit - lower (%)</b>               | Not available.           |
| <b>Flammability limit - upper (%)</b>               | Not available.           |
| <b>Vapour pressure</b>                              | < 0,0000001 kPa at 25 °C |
| <b>Vapour density</b>                               | Not available.           |
| <b>Relative density</b>                             | Not available.           |
| <b>Solubility(ies)</b>                              |                          |
| <b>Solubility (water)</b>                           | Not available.           |
| <b>Partition coefficient (n-octanol/water)</b>      | Not available.           |
| <b>Auto-ignition temperature</b>                    | Not available.           |
| <b>Decomposition temperature</b>                    | Not available.           |
| <b>Viscosity</b>                                    | Not available.           |
| <b>Explosive properties</b>                         | Not explosive.           |
| <b>Oxidising properties</b>                         | Not oxidising.           |

## 9.2. Other information

|                          |                        |
|--------------------------|------------------------|
| <b>Density</b>           | 4,69 g/cm <sup>3</sup> |
| <b>Molecular formula</b> | CdSO <sub>4</sub>      |
| <b>Molecular weight</b>  | 208,47 g/mol           |
| <b>Specific gravity</b>  | 4,69                   |

## SECTION 10: Stability and reactivity

|   |   |
|---|---|
| <b>10.1. Reactivity</b>                         | Not available.  |
| <b>10.2. Chemical stability</b>                 | Material is stable under normal conditions.                 |
| <b>10.3. Possibility of hazardous reactions</b> | No dangerous reaction known under conditions of normal use. |
| <b>10.4. Conditions to avoid</b>                | Contact with incompatible materials.                        |
| <b>10.5. Incompatible materials</b>             | None known.   |
| <b>10.6. Hazardous decomposition products</b>   | No hazardous decomposition products are known.              |

## SECTION 11: Toxicological information

**General information** Occupational exposure to the substance or mixture may cause adverse effects.

### Information on likely routes of exposure

|                     |   |
|---------------------|---|
| <b>Inhalation</b>   | Fatal if inhaled.                                       |
| <b>Skin contact</b> | Due to lack of data the classification is not possible. |
| <b>Eye contact</b>  | Due to lack of data the classification is not possible. |
| <b>Ingestion</b>    | Toxic if swallowed.                                     |

**Symptoms** Exposure may cause temporary irritation, redness, or discomfort.

### 11.1. Information on toxicological effects

**Acute toxicity** Fatal if inhaled. Toxic if swallowed. Toxic if swallowed.

| Product                           | Species | Test Results |
|-----------------------------------|---------|--------------|
| Cadmium Sulphate (CAS 10124-36-4) |         |              |
| <b>Acute</b>                      |         |              |
| <b>Oral</b>                       |         |              |
| LD50                              | Mouse   | 88 mg/kg     |



| Product | Species | Test Results |
|---------|---------|--------------|
|         | Rat     | 280 mg/kg    |

\* Estimates for product may be based on additional component data not shown.

|  |   |
|--|---|
| <b>Skin corrosion/irritation</b>         | Due to partial or complete lack of data the classification is not possible. |
| <b>Serious eye damage/eye irritation</b> | Due to partial or complete lack of data the classification is not possible. |
| <b>Respiratory sensitisation</b>         | Due to partial or complete lack of data the classification is not possible. |
| <b>Skin sensitisation</b>                | Due to partial or complete lack of data the classification is not possible. |
| <b>Germ cell mutagenicity</b>            | May cause genetic defects.  |
| <b>Carcinogenicity</b>                   | May cause cancer. May cause cancer.   |

**Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)**

Cadmium Sulphate (CAS 10124-36-4)

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Cadmium Sulphate (CAS 10124-36-4)

1 Carcinogenic to humans.

**Slovenia. CMR. Protection of workers from exposure to carcinogen and mutagen agents (ULRS 101/2005, as amended)**

Cadmium Sulphate (CAS 10124-36-4)

Carcinogenic, Category 1B.

|   |   |
|---|---|
| <b>Reproductive toxicity</b>                              | May damage fertility. May damage the unborn child.                          |
| <b>Specific target organ toxicity - single exposure</b>   | Due to partial or complete lack of data the classification is not possible. |
| <b>Specific target organ toxicity - repeated exposure</b> | Causes damage to organs through prolonged or repeated exposure.             |
| <b>Aspiration hazard</b>                                  | Due to partial or complete lack of data the classification is not possible. |
| <b>Mixture versus substance information</b>               | No information available.   |
| <b>Other information</b>                                  | Not available.  |

**SECTION 12: Ecological information**

**12.1. Toxicity** Very toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

| Product                           | Species | Test Results   |
|-----------------------------------|---------|--|
| Cadmium Sulphate (CAS 10124-36-4) |         |  |
| <b>Aquatic</b>                    |         |  |
| Crustacea                         | EC50    | Water flea (Daphnia pulex) 0,127 mg/l, 48 hours                                    |
| Fish                              | LC50    | Rainbow trout,donaldson trout (Oncorhynchus mykiss) 0,0023 - 0,0038 mg/l, 96 hours |

\* Estimates for product may be based on additional component data not shown.

|  |   |
|--|---|
| <b>12.2. Persistence and degradability</b>             | No data is available on the degradability of this product.  |
| <b>12.3. Bioaccumulative potential</b>                 | No data available.  |
| <b>Partition coefficient n-octanol/water (log Kow)</b> | Not available.  |
| <b>Bioconcentration factor (BCF)</b>                   | Not available.  |
| <b>12.4. Mobility in soil</b>                          | No data available.  |
| <b>12.5. Results of PBT and vPvB assessment</b>        | Not a PBT or vPvB substance or mixture.   |
| <b>12.6. Other adverse effects</b>                     | No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component. |

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

|                       |  |
|-----------------------|--|
| <b>Residual waste</b> | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). |
|-----------------------|--|

|                                     |  |
|-------------------------------------|--|
| <b>Contaminated packaging</b>       | Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.   |
| <b>EU waste code</b>                | The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.   |
| <b>Disposal methods/information</b> | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations. |
| <b>Special precautions</b>          | Dispose in accordance with all applicable regulations.   |

## SECTION 14: Transport information

### ADR

14.1. - 14.6.: Not regulated as dangerous goods.

### RID

14.1. - 14.6.: Not regulated as dangerous goods.

### ADN

14.1. - 14.6.: Not regulated as dangerous goods.

### IATA

14.1. - 14.6.: Not regulated as dangerous goods.

### IMDG

14.1. - 14.6.: Not regulated as dangerous goods.

## SECTION 15: Regulatory information

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

#### EU regulations

##### **Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended**

Not listed.

##### **Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended**

Not listed.

##### **Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**

Cadmium Sulphate (CAS 10124-36-4)

##### **Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**

Not listed.

##### **Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**

Not listed.

##### **Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**

Not listed.

##### **Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended**

Cadmium Sulphate (CAS 10124-36-4)

##### **Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**

Cadmium Sulphate (CAS 10124-36-4)

#### Authorisations

##### **Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**

Not listed.

#### Restrictions on use

##### **Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Cadmium Sulphate (CAS 10124-36-4)

##### **Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.**

Cadmium Sulphate (CAS 10124-36-4)

#### Other EU regulations

##### **Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended**

Cadmium Sulphate (CAS 10124-36-4)

**Other regulations** The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006. This product is not in compliance with Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronics equipment (RoHS). Pregnant women should not work with the product, if there is the least risk of exposure.

**National regulations** Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work. Follow national regulation for work with chemical agents.

**15.2. Chemical safety assessment** No Chemical Safety Assessment has been carried out.

## **SECTION 16: Other information**

**List of abbreviations** Not available.

**References** Not available.

**Training information** Follow training instructions when handling this material.

**Disclaimer** Materion Advanced Chemicals Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. This document has been prepared using data from sources considered to be technically reliable and the information is believed to be correct. Materion makes no warranties, expressed or implied, as to the accuracy of the information contained herein. Materion cannot anticipate all conditions under which this information and its products may be used and the actual conditions of use are beyond its control. The user is responsible to evaluate all available information when using this product for any particular use and to comply with all Federal, State, Provincial and Local laws, statutes and regulations.