

# SAFETY DATA SHEET



## CALCIUM 4 COMPONENT A

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

#### 1.1 Product identifier

**Product name** : CALCIUM 4 COMPONENT A  
**Product type** : Powder.  
**Other means of identification** : Not available.  
**Product part number** : R7446/R7447/R7448  
**Kit name** : FLIPR CALCIUM 4 ASSAY KIT  
FLIPR CALCIUM 4 ASSAY KIT, EXPLORER  
FLIPR CALCIUM 4 ASSAY EXPRESS KIT  
**Kit part number** : R8141/R8142/R8143/R8172

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

**Product use** : For R&D use only.  
**Area of application** : Professional applications.

#### Uses advised against

None identified.

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

Molecular Devices (Austria) GmbH  
Urstein Süd 17  
5412 Puch / Hallein  
AUSTRIA

**e-mail address of person responsible for this SDS** : msdsinquiry@moldev.com

#### 1.4 Emergency telephone number

##### National advisory body/Poison Center

**Telephone number** : CHEMTREC (24 hours): 1-800-424-9300 (USA/Canada),  
+1 703-527-3887 (Outside USA/Canada)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

☑ Skin Irrit. 2, H315

☑ Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

**Ingredients of unknown toxicity** : ☑ 8.7 percent of the mixture consists of component(s) of unknown acute oral toxicity  
99.5 percent of the mixture consists of component(s) of unknown acute dermal toxicity  
99.5 percent of the mixture consists of component(s) of unknown acute inhalation toxicity

**Ingredients of unknown ecotoxicity** : ☑ Contains 99.5% of components with unknown hazards to the aquatic environment

See Section 16 for the full text of the H statements declared above.

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

### 2.2 Label elements

**Hazard pictograms** :



**Signal word** : Warning

**Hazard statements** : ☑ H315 - Causes skin irritation.  
H412 - Harmful to aquatic life with long lasting effects.

#### Precautionary statements

**Prevention** : ☑ P280 - Wear protective gloves.  
P273 - Avoid release to the environment.  
P264 - Wash thoroughly after handling.

**Response** : ☑ P362 + P364 - Take off contaminated clothing and wash it before reuse.  
P302 + P352 - IF ON SKIN: Wash with plenty of water.

**Storage** : Not applicable.

**Disposal** : ☑ P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Supplemental label elements** : Not applicable.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

#### Special packaging requirements

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## SECTION 2: Hazards identification

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

### 2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : May form combustible dust concentrations in air.

## SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

| Product/ingredient name                                                                                 | Identifiers                      | %         | Regulation (EC) No. 1272/2008 [CLP]                                                                                                 | Type    |
|---------------------------------------------------------------------------------------------------------|----------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------|---------|
| Sodium 5-(acetylamino)-3-[(dimethylphenyl)azo]-4-hydroxynaphthalene-2,7-disulphonate dimethyl sulfoxide | EC: 235-329-0<br>CAS: 12167-45-2 | ≥10 - ≤25 | Skin Irrit. 2, H315                                                                                                                 | [1]     |
|                                                                                                         | EC: 200-664-3<br>CAS: 67-68-5    | <0.25     | Eye Irrit. 2, H319<br>Aquatic Chronic 1, H410 (M=10)<br><b>See Section 16 for the full text of the H statements declared above.</b> | [1] [2] |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

### Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness
- Ingestion** : No specific data.

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

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** : Use dry chemical powder.

**Unsuitable extinguishing media** : Do not use water jet.

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

**Hazards from the substance or mixture** : May form explosible dust-air mixture if dispersed. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
sulfur oxides  
metal oxide/oxides

### 5.3 Advice for firefighters

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

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

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

## SECTION 6: Accidental release measures

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

- Small spill** : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Avoid release to the environment. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

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## SECTION 7: Handling and storage

**Recommendations** : Not available.  
**Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

| Product/ingredient name | Exposure limit values                                                                                                  |
|-------------------------|------------------------------------------------------------------------------------------------------------------------|
| Dimethyl sulfoxide      | <b>Working Environment Authority (Denmark, 5/2020).</b><br>TWA: 50 ppm 8 hours.<br>TWA: 160 mg/m <sup>3</sup> 8 hours. |

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### DNELs/DMELs

| Product/ingredient name | Type | Exposure             | Value                 | Population         | Effects  |
|-------------------------|------|----------------------|-----------------------|--------------------|----------|
| Dimethyl sulfoxide      | DNEL | Long term Inhalation | 47 mg/m <sup>3</sup>  | General population | Local    |
|                         | DNEL | Long term Oral       | 60 mg/kg bw/day       | General population | Systemic |
|                         | DNEL | Long term Dermal     | 100 mg/kg bw/day      | General population | Systemic |
|                         | DNEL | Long term Inhalation | 120 mg/m <sup>3</sup> | General population | Systemic |
|                         | DNEL | Long term Dermal     | 200 mg/kg bw/day      | Workers            | Systemic |
|                         | DNEL | Long term Inhalation | 265 mg/m <sup>3</sup> | Workers            | Local    |
|                         | DNEL | Long term Inhalation | 484 mg/m <sup>3</sup> | Workers            | Systemic |

#### PNECs

No PNECs available.

### 8.2 Exposure controls

## SECTION 8: Exposure controls/personal protection

- Appropriate engineering controls** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles. If operating conditions cause high dust concentrations to be produced, use dust goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.



## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

|                                              |                                                       |
|----------------------------------------------|-------------------------------------------------------|
| Physical state                               | : Solid. [Crystalline powder.]                        |
| Color                                        | : Brownish-red. [Dark]                                |
| Odor                                         | : Not available.                                      |
| Odor threshold                               | : Not available.                                      |
| pH                                           | : Not available.                                      |
| Melting point/freezing point                 | : Not available.                                      |
| Initial boiling point and boiling range      | : Not available.                                      |
| Flash point                                  | : <input checked="" type="checkbox"/> Not applicable. |
| Evaporation rate                             | : Not available.                                      |
| Flammability (solid, gas)                    | : Not available.                                      |
| Upper/lower flammability or explosive limits | : <input checked="" type="checkbox"/> Not applicable. |
| Vapor pressure                               | : Not available.                                      |
| Vapor density                                | : <input checked="" type="checkbox"/> Not applicable. |
| Relative density                             | : Not available.                                      |
| Solubility(ies)                              | : Not available.                                      |
| Partition coefficient: n-octanol/ water      | : <input checked="" type="checkbox"/> Not applicable. |
| Auto-ignition temperature                    | : <input checked="" type="checkbox"/> Not applicable. |
| Decomposition temperature                    | : Not available.                                      |
| Viscosity                                    | : <input checked="" type="checkbox"/> Not applicable. |
| Explosive properties                         | : Not available.                                      |
| Oxidizing properties                         | : Not available.                                      |

### 9.2 Other information

|                                       |                              |
|---------------------------------------|------------------------------|
| Physical/chemical properties comments | : No additional information. |
|---------------------------------------|------------------------------|

## SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.  
Under normal conditions of storage and use, hazardous polymerization will not occur.

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## SECTION 10: Stability and reactivity

**10.4 Conditions to avoid** : Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.

**10.5 Incompatible materials** : Reactive or incompatible with the following materials: oxidizing materials

**10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

| Product/ingredient name | Result      | Species | Dose        | Exposure |
|-------------------------|-------------|---------|-------------|----------|
| Dimethyl sulfoxide      | LD50 Dermal | Rat     | 40000 mg/kg | -        |
|                         | LD50 Oral   | Rat     | 14500 mg/kg | -        |

**Conclusion/Summary** : Not available.

#### Acute toxicity estimates

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|-------------------------|--------------|----------------|--------------------------|----------------------------|-------------------------------------|
| Dimethyl sulfoxide      | 14500        | 40000          | N/A                      | N/A                        | N/A                                 |

#### Irritation/Corrosion

| Product/ingredient name | Result               | Species | Score | Exposure        | Observation |
|-------------------------|----------------------|---------|-------|-----------------|-------------|
| Dimethyl sulfoxide      | Eyes - Mild irritant | Rabbit  | -     | 24 hours 500 mg | -           |
|                         | Eyes - Mild irritant | Rabbit  | -     | 100 mg          | -           |
|                         | Skin - Mild irritant | Rabbit  | -     | 24 hours 500 mg | -           |
|                         | Skin - Mild irritant | Rabbit  | -     | 100 mg          | -           |

**Conclusion/Summary** : Not available.

#### Sensitization

**Conclusion/Summary** : Not available.

#### Mutagenicity

**Conclusion/Summary** : Not available.

#### Carcinogenicity

**Conclusion/Summary** : Not available.

## SECTION 11: Toxicological information

### Reproductive toxicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

**Eye contact** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

**Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

**Skin contact** : Causes skin irritation.

**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness

**Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing

**Skin contact** : Adverse symptoms may include the following:  
irritation  
redness

**Ingestion** : No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

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## SECTION 11: Toxicological information

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

**General** : Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Reproductive toxicity** :  No known significant effects or critical hazards.

**Other information** : Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

| Product/ingredient name | Result                               | Species                                                             | Exposure |
|-------------------------|--------------------------------------|---------------------------------------------------------------------|----------|
| Dimethyl sulfoxide      | Acute EC50 18299 µg/l Marine water   | Algae - Nitzschia pungens                                           | 96 hours |
|                         | Acute LC50 37.437 mg/l Marine water  | Crustaceans - Artemia sp.                                           | 48 hours |
|                         | Acute LC50 25000 ppm Fresh water     | Daphnia - Daphnia magna - Neonate                                   | 48 hours |
|                         | Acute LC50 34000000 µg/l Fresh water | Fish - Pimephales promelas                                          | 96 hours |
|                         | Chronic NOEC 3323 µg/l Marine water  | Algae - Nitzschia pungens                                           | 96 hours |
|                         | Chronic NOEC 100 µl/L Fresh water    | Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling) | 21 days  |
|                         | Chronic NOEC 6 ppb Fresh water       | Fish - Poecilia reticulata - Adult                                  | 16 weeks |

**Conclusion/Summary** : Not available.

### 12.2 Persistence and degradability

| Product/ingredient name | Test                                                  | Result                       | Dose | Inoculum |
|-------------------------|-------------------------------------------------------|------------------------------|------|----------|
| Dimethyl sulfoxide      | OECD 301D Ready Biodegradability - Closed Bottle Test | 31 % - Not readily - 28 days | -    | -        |

**Conclusion/Summary** : Not available.

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| Dimethyl sulfoxide      | -                 | -          | Not readily      |

### 12.3 Bioaccumulative potential

| Product/ingredient name | LogP <sub>ow</sub> | BCF  | Potential |
|-------------------------|--------------------|------|-----------|
| Dimethyl sulfoxide      | -1.35              | 3.16 | low       |

## SECTION 12: Ecological information

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

#### Packaging

**Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

|                                        | ADR/RID        | ADN            | IMDG           | IATA           |
|----------------------------------------|----------------|----------------|----------------|----------------|
| <b>14.1 UN number</b>                  | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| <b>14.2 UN proper shipping name</b>    | -              | -              | -              | -              |
| <b>14.3 Transport hazard class(es)</b> | -              | -              | -              | -              |
| <b>14.4 Packing group</b>              | -              | -              | -              | -              |
|                                        |                |                |                |                |

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## SECTION 14: Transport information

| 14.5 Environmental hazards | No. | No. | No. | No. |
|----------------------------|-----|-----|-----|-----|
|                            |     |     |     |     |

**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to IMO instruments** : Not available.

## SECTION 15: Regulatory information

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

#### EU Regulation (EC) No. 1907/2006 (REACH)

##### Annex XIV - List of substances subject to authorization

###### Annex XIV

None of the components are listed.

###### Substances of very high concern

None of the components are listed.

##### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

**Substances requiring labelling** : Not applicable.

#### Other EU regulations

**Europe inventory** : All components are listed or exempted.

##### Ozone depleting substances (1005/2009/EU)

Not listed.

##### Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

##### Seveso Directive

This product is not controlled under the Seveso Directive.

#### National regulations

**MAL-code** : 00-3

**Protection based on MAL** : **According to the regulations on work involving coded products, the following stipulations apply to the use of personal protective equipment:**

**General:** Gloves must be worn for all work that may result in soiling. Apron/coveralls/ protective clothing must be worn when soiling is so great that regular work clothes do not adequately protect skin against contact with the product. A face shield must be worn in work involving spattering if a full mask is not required. In this case, other

## SECTION 15: Regulatory information

recommended use of eye protection is not required.

In all spraying operations in which there is return spray, the following must be worn: respiratory protection and arm protectors/apron/coveralls/protective clothing as appropriate or as instructed.

MAL-code: 00-3

**Application:** During downtimes, cleaning and repair of closed facilities, spray booths or cabins, if there is a risk of contact with wet paint or organic solvents. When using scraper or knife, brush, roller, etc. for pre- and post-treatments in cabins or booths of the existing\* facility type, if the operator is inside the spray zone.

- Coveralls must be worn.

When spraying in existing\* spray booths, if the operator is outside the spray zone.

- Arm protectors and apron must be worn.

During all spraying where atomization occurs in cabins or spray booths where the operator is inside the spray zone and during spraying outside a closed facility, cabin or booth.

- Air-supplied full mask, coveralls and hood must be worn.

**Drying:** Items for drying/drying ovens that are temporarily placed on such things as rack trolleys, etc. must be equipped with a mechanical exhaust system to prevent fumes from wet items from passing through workers' inhalation zone.

**Polishing:** When polishing treated surfaces, a mask with dust filter must be worn. When machine grinding, eye protection must be worn. Work gloves must always be worn.

**Caution** The regulations contain other stipulations in addition to the above.

\*See Regulations.

### [International regulations](#)

#### [Chemical Weapon Convention List Schedules I, II & III Chemicals](#)

Not listed.

#### [Montreal Protocol](#)

Not listed.

#### [Stockholm Convention on Persistent Organic Pollutants](#)

Not listed.

#### [Rotterdam Convention on Prior Informed Consent \(PIC\)](#)

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## SECTION 15: Regulatory information

Not listed.

### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

**15.2 Chemical Safety Assessment** : This product contains substances for which Chemical Safety Assessments are still required.

**15.3 Registration status** : Mixture. Information concerning the substance : Contact local supplier or distributor.

## SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
EUH statement = CLP-specific Hazard statement  
N/A = Not available  
PBT = Persistent, Bioaccumulative and Toxic  
PNEC = Predicted No Effect Concentration  
RRN = REACH Registration Number  
vPvB = Very Persistent and Very Bioaccumulative

**Key literature references and sources for data** : Regulation (EC) No. 1272/2008 [CLP]; European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), concluded in Geneva on 30 September 1957 plus amendments (Uniform text: Journal of Laws 27/2009 pos. 162 plus amendments); European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN); Occupational exposure limits; International regulations

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

| Classification                                   | Justification                            |
|--------------------------------------------------|------------------------------------------|
| ✔ Skin Irrit. 2, H315<br>Aquatic Chronic 3, H412 | Calculation method<br>Calculation method |

### Full text of abbreviated H statements

|                                |                                                                                                                                                                          |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ✔ H315<br>H319<br>H410<br>H412 | Causes skin irritation.<br>Causes serious eye irritation.<br>Very toxic to aquatic life with long lasting effects.<br>Harmful to aquatic life with long lasting effects. |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Full text of classifications [CLP/GHS]

|                                                                           |                                                                                                                                                                                 |
|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ✔ Aquatic Chronic 1<br>Aquatic Chronic 3<br>Eye Irrit. 2<br>Skin Irrit. 2 | AQUATIC HAZARD (LONG-TERM) - Category 1<br>AQUATIC HAZARD (LONG-TERM) - Category 3<br>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2<br>SKIN CORROSION/IRRITATION - Category 2 |
|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Training advice** : Ensure operatives are trained to minimise exposures. Training staff on good practice.



CALCIUM 4 COMPONENT A

## SECTION 16: Other information

**Date of issue/ Date of revision** : 05/05/2021

**Date of previous issue** : 05/03/2018

**Version** : 3

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.