



# SAFETY DATA SHEET

**MATERION**

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

### 1.1. Product identifier

**Name of the substance** Calcium Nitrate [Ca(NO<sub>3</sub>)<sub>2</sub>·4H<sub>2</sub>O]  
**Identification number** 233-332-1 (EC number)  
**Synonyms** None.  
**Document number** 1GM  
**Materion Code** 1GM  
**Issue date** 06-May-2015  
**Version number** 02  
**Revision date** 10-January-2018  
**Supersedes date** 06-May-2015

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

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

### 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** Noreen Atkinson

### 1.4. Emergency telephone number

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

**Physical hazards**  
Oxidising liquids Category 3 H272 - May intensify fire; oxidiser.  
**Health hazards**  
Acute toxicity, oral Category 4 H302 - Harmful if swallowed.

**Hazard summary** Not available.

### 2.2. Label elements

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

**Contains:** Calcium Nitrate  
**Hazard pictograms** None.  
**Signal word** Warning  
**Hazard statements**  
H272 May intensify fire; oxidiser.  
H302 Harmful if swallowed.

### Precautionary statements

**Prevention**  
P210 Keep away from heat.  
P220 Keep/Store away from clothing and other combustible materials.  
P221 Take any precaution to avoid mixing with combustibles.  
P264 Wash thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/eye protection/face protection.

**Response**

P301 + P312 IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.  
P330 Rinse mouth.  
P370 + P378 In case of fire: Use appropriate media for extinction.

**Storage**

Not available.

**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
Calcium Nitrate	100	13477-34-4 233-332-1	-	-	
<b>Classification:</b>	Ox. Liq. 3;H272, Acute Tox. 4;H302				

**SECTION 4: First aid measures**

**General information** Not available.

**4.1. Description of first aid measures**

**Inhalation** Not available.  
**Skin contact** Not available.  
**Eye contact** Not available.  
**Ingestion** Not available.

**4.2. Most important symptoms and effects, both acute and delayed** Not available.

**4.3. Indication of any immediate medical attention and special treatment needed** Not available.

**SECTION 5: Firefighting measures**

**General fire hazards** Not available.

**5.1. Extinguishing media**

**Suitable extinguishing media** Not available.  
**Unsuitable extinguishing media** Not available.

**5.2. Special hazards arising from the substance or mixture** Not available.

**5.3. Advice for firefighters**

**Special protective equipment for firefighters** Not available.

**SECTION 6: Accidental release measures**

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

**For non-emergency personnel** Not available.  
**For emergency responders** Not available.

**6.2. Environmental precautions** Not available.

**6.3. Methods and material for containment and cleaning up** Not available.

**6.4. Reference to other sections** Not available.

## **SECTION 7: Handling and storage**

**7.1. Precautions for safe handling** Not available.

**7.2. Conditions for safe storage, including any incompatibilities** Not available.

**7.3. Specific end use(s)** Not available.

## **SECTION 8: Exposure controls/personal protection**

### **8.1. Control parameters**

**Occupational exposure limits** No exposure limits noted for ingredient(s).

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Recommended monitoring procedures** Not available.

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

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

### **8.2. Exposure controls**

**Appropriate engineering controls** Not available.

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

**General information** Not available.

**Eye/face protection** Not available.

#### **Skin protection**

- **Hand protection** Not available.

- **Other** Not available.

**Respiratory protection** Not available.

**Thermal hazards** Not available.

**Hygiene measures** Not available.

**Environmental exposure controls** Not available.

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

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

#### **Appearance**

**Physical state** Liquid.

**Form** Not available.

**Colour** Not available.

**Odour** Not available.

**Odour threshold** Not available.

**pH** 6.5% aqueous solution

**Melting point/freezing point** 560 °C (1040 °F)

**Initial boiling point and boiling range** Not available.

**Flash point** Not available.

**Evaporation rate** Not available.

**Flammability (solid, gas)** Not available.

#### **Upper/lower flammability or explosive limits**

**Flammability limit - lower (%)** Not available.

**Flammability limit - upper (%)** 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 available.
<b>Oxidising properties</b>	Not available.

## 9.2. Other information

<b>Density</b>	2,50 g/cm <sup>3</sup> estimated at 25 °C
<b>Molecular formula</b>	Ca <sub>2</sub> H-N-O <sub>3</sub>
<b>Molecular weight</b>	236,15 g/mol
<b>Specific gravity</b>	2,5 at 25 °C

## SECTION 10: Stability and reactivity

<b>10.1. Reactivity</b>	Not available.
<b>10.2. Chemical stability</b>	Not available.
<b>10.3. Possibility of hazardous reactions</b>	Not available.
<b>10.4. Conditions to avoid</b>	Not available.
<b>10.5. Incompatible materials</b>	Not available.
<b>10.6. Hazardous decomposition products</b>	Not available.

## SECTION 11: Toxicological information

<b>General information</b>	Not available.
<b>Information on likely routes of exposure</b>	
<b>Inhalation</b>	Not available.
<b>Skin contact</b>	Not available.
<b>Eye contact</b>	Not available.
<b>Ingestion</b>	Not available.
<b>Symptoms</b>	Not available.

### 11.1. Information on toxicological effects

#### Acute toxicity

Product	Species	Test results
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Calcium Nitrate (CAS 13477-34-4)

#### **Acute**

##### **Oral**

LD50	Rat	302 mg/kg
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**Skin corrosion/irritation** Not available.

**Serious eye damage/eye irritation** Not available.

**Respiratory sensitisation** Not available.

**Skin sensitisation** Not available.

**Germ cell mutagenicity** Not available.

#### **Carcinogenicity**

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

Not listed.

**Reproductive toxicity** Not available.

**Specific target organ toxicity - single exposure** Not available.

Material name: Calcium Nitrate [Ca(NO<sub>3</sub>)<sub>2</sub>·4H<sub>2</sub>O]

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**Specific target organ toxicity - repeated exposure** Not available.

**Aspiration hazard** Not available.

**Mixture versus substance information** Not available.

**Other information** Not available.

## SECTION 12: Ecological information

### 12.1. Toxicity

Product	Species	Test results
Calcium Nitrate (CAS 13477-34-4)		
<b>Aquatic</b>		
Fish	LC50 Bluegill ( <i>Lepomis macrochirus</i> )	2400 mg/l, 96 hours

**12.2. Persistence and degradability** Not available.

**12.3. Bioaccumulative potential** Not available.

**Partition coefficient n-octanol/water (log Kow)** Not available.

**Bioconcentration factor (BCF)** Not available.

**12.4. Mobility in soil** Not available.

**12.5. Results of PBT and vPvB assessment** Not a PBT or vPvB substance or mixture.

**12.6. Other adverse effects** Not available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Residual waste** Not available.

**Contaminated packaging** Not available.

**EU waste code** Not available.

## SECTION 14: Transport information

### ADR

- 14.1. UN number** UN1454  
**14.2. UN proper shipping name** CALCIUM NITRATE  
**14.3. Transport hazard class(es)**  
**Class** 5.1  
**Subsidiary risk** -  
**Label(s)** 5.1  
**Hazard No. (ADR)** 50  
**Tunnel restriction code** E  
**14.4. Packing group** III  
**14.5. Environmental hazards** No.  
**14.6. Special precautions for user** Not available.

### RID

- 14.1. UN number** UN1454  
**14.2. UN proper shipping name** CALCIUM NITRATE  
**14.3. Transport hazard class(es)**  
**Class** 5.1  
**Subsidiary risk** -  
**Label(s)** 5.1  
**14.4. Packing group** III  
**14.5. Environmental hazards** No.

**14.6. Special precautions for user** Not available.

#### ADN

**14.1. UN number** UN1454  
**14.2. UN proper shipping name** CALCIUM NITRATE  
**14.3. Transport hazard class(es)**  
    **Class** 5.1  
    **Subsidiary risk** -  
    **Label(s)** 5.1  
**14.4. Packing group** III  
**14.5. Environmental hazards** No.  
**14.6. Special precautions for user** Not available.

#### IATA

**14.1. UN number** UN1454  
**14.2. UN proper shipping name** Calcium nitrate  
**14.3. Transport hazard class(es)**  
    **Class** 5.1  
    **Subsidiary risk** -  
**14.4. Packing group** III  
**14.5. Environmental hazards** No.  
**ERG Code** 5L  
**14.6. Special precautions for user** Not available.

#### Other information

**Passenger and cargo aircraft** Allowed with restrictions.  
**Cargo aircraft only** Allowed with restrictions.

#### IMDG

**14.1. UN number** UN1454  
**14.2. UN proper shipping name** CALCIUM NITRATE  
**14.3. Transport hazard class(es)**  
    **Class** 5.1  
    **Subsidiary risk** -  
**14.4. Packing group** III  
**14.5. Environmental hazards**  
    **Marine pollutant** No.  
**EmS** F-A, S-Q  
**14.6. Special precautions for user** Not available.

ADN; ADR; IATA; IMDG; RID



## 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**

Not listed.

**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**

Not listed.

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

Not listed.

**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**

Not listed.

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

Not listed.

**Other EU regulations**

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

Not listed.

**National regulations** Not available.

**15.2. Chemical safety assessment** Not available.

**SECTION 16: Other information**

**List of abbreviations** Not available.

**Information on evaluation method leading to the classification of mixture** Not available.