

Revision: 2.0
(Replaces revision 1.1 of 16 April 2021)Revision date:
Date printed:19 April 2021
12 August 2023**Section 1. Identification****1.1 Product Identifier** 0948Product Name CALCIUM NITRATE 4H₂O pure

CAS Number 13477-34-4

REACH Registration No 01-2119495093-35-XXXX

Molecular Formula $\text{Ca}(\text{NO}_3)_2 \cdot 4\text{H}_2\text{O} = 236.15$ **1.2 Relevant identified uses of the substance or mixture & uses advised against**

Uses of Material Chemical for industrial and laboratory use. Not suitable for domestic use.

1.3 Supplier Vickers Laboratories LtdGrangefield Industrial Estate
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(Have this document to hand)**Section 2. Hazards Identification****2.1 Classification of the substance or mixture****Classification according to regulation 1272/2008/EC**

Oxidising solid, category 3

Acute toxicity, category 4 (oral)

Serious eye damage/irritation, category 1

H272: May intensify fire; oxidizer.

H302: Harmful if swallowed.

H318: Causes serious eye damage.

2.2 Label elements**Labelling according to regulation 1272/2008/EC**

Signal word Danger

Hazard Pictograms



Hazard Statements May intensify fire; oxidizer. Harmful if swallowed. Causes serious eye damage.

Precautionary Statements Wear protective gloves / protective clothing / eye protection / face protection. Do not breathe dust / fume / gas / mist / vapours / spray. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing.

Section 3. Composition

3.1 Substances

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Calcium nitrate	13477-34-4	233-332-1	01-2119495093-35-XXXX	>98%	Ox. Sol. 3, Acute Tox. 4 (O), Eye Dam. 1

Section 4. First Aid

4.1 Description of first aid measures

Eyes	Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. If discomfort persists OBTAIN MEDICAL ATTENTION.
Skin	Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use.
Inhalation	Remove from exposure.
Ingestion	If conscious give plenty of water to drink. Keep warm and at rest. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. OBTAIN MEDICAL ATTENTION URGENTLY.
Personal protection for first aiders	Wear protective gloves / eye protection.

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

No further relevant information available.

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

No further relevant information available.

Section 5. Fire Fighting

5.1 Extinguishing media

Extinguishing Media	Water spray.
Unsuitable Media	Nothing specified.

5.2 Special hazards arising from the substance or mixture

Hazards	May evolve toxic fumes if involved in a fire. Mixtures with combustible materials are flammable.
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5.3 Advice for firefighters

Advice for firefighters	Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus.
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Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Protection	Presents no major hazards.
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6.2 Environmental precautions

Environmental	Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.
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6.3 Methods and material for containment and cleaning up

Major Spillage	Shovel/sweep up into container for removal Wash area down with copious amounts of water.
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Minor Spillage

Wash area down with copious amounts of water.

6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

Section 7. Storage & Handling

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not breath dust. Do not allow to contaminate clothing.

7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage . Store in a suitable area for oxidising agents. Keep well separated from combustible materials.

7.3 Specific end use(s)

See section 1.2.

Section 8. Workplace Exposure & Personal Protection

8.1 Control parameters

Component	CAS No	Concentration	Workplace Exposure Limits	
			Long Term (8hr TWA)	Short Term 15min period
Calcium nitrate	13477-34-4	>98%	-	-

Exposure data source(s) No occupational exposure data currently available.

8.2 Exposure controls

Respiratory Protection	If process creates significant amounts of dust use L.E.V. or wear suitable dust mask.
Hand Protection	Wear gloves.
Eye Protection	Use tightly fitting chemical splash proof glasses or goggles.
Skin Protection	Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.
Special Hazards	No special precautions required.

Section 9. Physical & Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	White deliquescent crystalline material.
Odour	No specific odour.
pH	6 @ 20°C
Boiling Point	Not available
Melting Point	44 °C
Flash Point	Not applicable
Upper Flammable Limit	Not applicable
Lower Flammable Limit	Not applicable
Auto Ignition	Not applicable
Explosive Properties	No.
Oxidising Properties	Yes.
Vapour Pressure	Not applicable
Relative Density	1.8200
Water Solubility	Very soluble in water.

9.2 Other information

No data available.

Section 10. Stability & Reactivity

10.1 Reactivity No data available.

10.2 Chemical Stability	Stable under normal conditions
10.3 Possibility of hazardous reactions	No data available.
10.4 Conditions to Avoid	Do not allow to impregnate wood or other organic materials.
10.5 Incompatible Materials	Combustible materials. Many organic compounds.
10.6 Hazardous Decomposition Products	Not flammable but will assist a fire, producing irritant and toxic fumes of oxides of nitrogen.

Section 11. Toxicological Information

11.1 Information on toxicological effects

Eyes	Causes serious eye damage.
Skin	The solid and solutions may be irritating to the skin.
LD50 Skin	Not available
Ingestion	Low order of acute toxicity.
LD50 Oral	3900mg/kg Rat
Inhalation	Presents no significant health hazard by inhalation.
LD50 Inhalation	Not available
TCLo	Not available
Carcinogenicity	No information is available.
Mutagenicity	No information is available.
Reproductive Effects	No information is available.

Section 12. Ecological

12.1 Toxicity	Low levels are readily bio-degraded in the environment. Higher levels are toxic to marine and plant life.
LC50 Algal	Not available
LC50 Crustacea	Not available
LC50 Fish	Not available
12.2 Persistence and degradability	No data available.
12.3 Bioaccumulative potential	No data available.
12.4 Mobility in soil	No data available.
12.5 Results of PBT & vPvB assessment	Assessment not required.
12.6 Other adverse effects	None known at present.

Section 13. Disposal Considerations

13.1 Waste treatment methods

Disposal Methods	Do not dispose of as domestic waste.
Contaminated Packaging	Wash out containers with water.

Section 14. Transport Information

14.1 UN Number	1454
14.2 Proper Shipping Name	Calcium nitrate
14.3 Transport classes	
UN classification	5.1
Subsidiary hazard(s)	None
Transport category	3
ADR Hazard ID	50
Tunnel Restriction Code	E
14.4 Packing Group	III
14.5 Environment hazards	See section 12.
14.6 Special precautions for user	No special precautions required.
14.7 Transport in bulk	Not transported in bulk.



Section 15. Regulatory Information

15.1 Safety, health and environment regulations specific for substance/mixture.

Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification Oxidising solid, category 3; Acute toxicity, category 4 (oral); Serious eye damage/irritation, category 1

Signal word Danger

Hazard Pictograms



Hazard Statements H272, H302, H318
May intensify fire; oxidizer. Harmful if swallowed. Causes serious eye damage.

Precautionary Statements P280, P260, P301+P330+P331, P303+P361+P353, P304+P340, P305+P351+P338
Wear protective gloves / protective clothing / eye protection / face protection. Do not breathe dust / fume / gas / mist / vapours / spray. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing.

15.2 Chemical safety assessment

Assessment not required.

Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

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