



PRODUCT INFORMATION SHEET

MATERION

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

1.1. Product identifier

Name of the substance Calcium oxide
Identification number 1305-78-8 (CAS number)
Synonyms None.
Document number 153
Version number 01

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 product information sheet

Supplier

Company name Materion Advanced Materials Group
Address 42 Mt. Ebo Road South
Brewster, NY 10509
United States
Division
Telephone Supplier Phone 1+845.279.0900
e-mail Not available.
Contact person Not available.

1.4. Emergency telephone number Chemtrec 1+703.527.3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

Classification C;R35

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

Health hazards

Skin corrosion/irritation	Category 1	H314 - Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Category 1	H318 - Causes serious eye damage.

Hazard summary

Physical hazards Not classified for physical hazards.
Health hazards Causes severe burns.
Environmental hazards Not classified for hazards to the environment.
Specific hazards Not available.
Main symptoms Not available.

2.2. Label elements

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

Contains: Calcium oxide
Hazard pictograms None.
Signal word Danger
Hazard statements
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.

Precautionary statements

Prevention
P260 Do not breathe dust.
P264 Wash thoroughly after handling.

P280 Wear eye protection/face protection.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE or doctor/physician.
P363 Wash contaminated clothing before reuse.

Storage

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
Calcium oxide	99 - 100	1305-78-8 215-138-9	-	-	
Classification:	DSD: C;R35				
	CLP: Skin Corr. 1;H314, Eye Dam. 1;H318				

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 DRY sand, sodium chloride powder, graphite powder or Met-L-X powder.
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

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

Material	Type	Value	Form
Calcium oxide	Ceiling	4 mg/m ³	Inhalable fraction.
Components	Type	Value	Form
Calcium oxide (CAS 1305-78-8)	Ceiling	4 mg/m ³	Inhalable fraction.
	MAK	2 mg/m ³	Inhalable fraction.

Belgium. Exposure Limit Values.

Material	Type	Value
Calcium oxide	TWA	2 mg/m ³
Components	Type	Value
Calcium oxide (CAS 1305-78-8)	TWA	2 mg/m ³

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

Material	Type	Value
Calcium oxide	TWA	5 mg/m ³
Components	Type	Value
Calcium oxide (CAS 1305-78-8)	TWA	5 mg/m ³

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

Material	Type	Value
Calcium oxide	MAC	2 mg/m ³
Components	Type	Value
Calcium oxide (CAS 1305-78-8)	MAC	2 mg/m ³

Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended.

Material	Type	Value
Calcium oxide	TWA	2 mg/m ³
Components	Type	Value
Calcium oxide (CAS 1305-78-8)	TWA	2 mg/m ³

Czech Republic. OELs. Government Decree 361

Material	Type	Value
Calcium oxide	Ceiling	4 mg/m ³
	TWA	2 mg/m ³
Components	Type	Value

Calcium oxide (CAS 1305-78-8)	Ceiling	4 mg/m ³
	TWA	2 mg/m ³

Denmark. Exposure Limit Values

Material	Type	Value
Calcium oxide	TLV	2 mg/m ³
Components	Type	Value

Calcium oxide (CAS 1305-78-8)	TLV	2 mg/m ³
-------------------------------	-----	---------------------

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

Material	Type	Value
Calcium oxide	STEL	5 mg/m ³
	TWA	2 mg/m ³
Components	Type	Value

Calcium oxide (CAS 1305-78-8)	STEL	5 mg/m ³
	TWA	2 mg/m ³

Finland. Workplace Exposure Limits

Material	Type	Value
Calcium oxide	TWA	2 mg/m ³
Components	Type	Value

Calcium oxide (CAS 1305-78-8)	TWA	2 mg/m ³
-------------------------------	-----	---------------------

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

Material	Type	Value
Calcium oxide	VME	2 mg/m ³
Components	Type	Value

Calcium oxide (CAS 1305-78-8)	VME	2 mg/m ³
-------------------------------	-----	---------------------

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Material	Type	Value	Form
Calcium oxide	TWA	1 mg/m ³	Inhalable fraction.
Components	Type	Value	Form

Calcium oxide (CAS 1305-78-8)	TWA	1 mg/m ³	Inhalable fraction.
-------------------------------	-----	---------------------	---------------------

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

Material	Type	Value
Calcium oxide	TWA	5 mg/m ³
Components	Type	Value

Calcium oxide (CAS 1305-78-8)	TWA	5 mg/m ³
-------------------------------	-----	---------------------

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Material	Type	Value
Calcium oxide	STEL	5 mg/m ³
	TWA	5 mg/m ³
Components	Type	Value

Calcium oxide (CAS 1305-78-8)	STEL	5 mg/m ³
	TWA	5 mg/m ³

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

Material	Type	Value
Calcium oxide	TWA	2 mg/m ³
Components	Type	Value
Calcium oxide (CAS 1305-78-8)	TWA	2 mg/m ³

Ireland. Occupational Exposure Limits

Material	Type	Value
Calcium oxide	TWA	2 mg/m ³
Components	Type	Value
Calcium oxide (CAS 1305-78-8)	TWA	2 mg/m ³

Italy. Occupational Exposure Limits

Material	Type	Value
Calcium oxide	TWA	2 mg/m ³
Components	Type	Value
Calcium oxide (CAS 1305-78-8)	TWA	2 mg/m ³

Latvia. OELs. Occupational exposure limit values of chemical substances in work environment

Material	Type	Value
Calcium oxide	TWA	5 mg/m ³
Components	Type	Value
Calcium oxide (CAS 1305-78-8)	TWA	5 mg/m ³

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

Material	Type	Value
Calcium oxide	STEL	5 mg/m ³
Components	TWA	2 mg/m ³
	Type	Value
Calcium oxide (CAS 1305-78-8)	STEL	5 mg/m ³
	TWA	2 mg/m ³

Norway. Administrative Norms for Contaminants in the Workplace

Material	Type	Value
Calcium oxide	Ceiling	2 mg/m ³
Components	Type	Value
Calcium oxide (CAS 1305-78-8)	Ceiling	2 mg/m ³

Poland. MACs. Minister of Labour and Social Policy Regarding Maximum Allowable Concentrations and Intensities in Working Environment

Material	Type	Value	Form
Calcium oxide	STEL	6 mg/m ³	Inhalable fraction.
		4 mg/m ³	Respirable fraction.
	TWA	2 mg/m ³	Inhalable fraction.
		1 mg/m ³	Respirable fraction.
Components	Type	Value	Form
Calcium oxide (CAS 1305-78-8)	STEL	6 mg/m ³	Inhalable fraction.
		4 mg/m ³	Respirable fraction.
	TWA	2 mg/m ³	Inhalable fraction.
		1 mg/m ³	Respirable fraction.

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

Material	Type	Value
Calcium oxide	TWA	2 mg/m ³

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

Components	Type	Value
Calcium oxide (CAS 1305-78-8)	TWA	2 mg/m ³

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

Material	Type	Value
Calcium oxide	STEL	5 mg/m ³
	TWA	2 mg/m ³
Components	Type	Value

Calcium oxide (CAS 1305-78-8)	STEL	5 mg/m ³
	TWA	2 mg/m ³

Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents

Material	Type	Value
Calcium oxide	TWA	2 mg/m ³
Components	Type	Value

Calcium oxide (CAS 1305-78-8)	TWA	2 mg/m ³
-------------------------------	-----	---------------------

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
Calcium oxide	TWA	5 mg/m ³	Inhalable fraction.
Components	Type	Value	Form
Calcium oxide (CAS 1305-78-8)	TWA	5 mg/m ³	Inhalable fraction.

Spain. Occupational Exposure Limits

Material	Type	Value
Calcium oxide	TWA	2 mg/m ³
Components	Type	Value
Calcium oxide (CAS 1305-78-8)	TWA	2 mg/m ³

Sweden. Occupational Exposure Limit Values

Material	Type	Value	Form
Calcium oxide	STEL	2,5 mg/m ³	Inhalable dust.
	TWA	1 mg/m ³	Inhalable dust.
Components	Type	Value	Form
Calcium oxide (CAS 1305-78-8)	STEL	2,5 mg/m ³	Inhalable dust.
	TWA	1 mg/m ³	Inhalable dust.

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Material	Type	Value	Form
Calcium oxide	STEL	2 mg/m ³	Inhalable dust.
	TWA	2 mg/m ³	Inhalable dust.
Components	Type	Value	Form
Calcium oxide (CAS 1305-78-8)	STEL	2 mg/m ³	Inhalable dust.
	TWA	2 mg/m ³	Inhalable dust.

UK. EH40 Workplace Exposure Limits (WELs)

Material	Type	Value
Calcium oxide	TWA	2 mg/m ³
Components	Type	Value
Calcium oxide (CAS 1305-78-8)	TWA	2 mg/m ³

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

Recommended monitoring procedures Not available.

Derived no-effect level (DNEL) 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

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 Solid.

Form Not available.

Colour Not available.

Odour Not applicable.

Odour threshold Not available.

pH 12,8 Saturated solution in water

Melting point/freezing point 2572 °C (4661,6 °F)

Initial boiling point and boiling range 2850 °C (5162 °F)

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Vapour pressure < 0,0000001 kPa at 25 °C

Vapour density Not available.

Relative density Not available.

Solubility(ies)

Solubility (water) Reacts

Solubility (other) Not available.

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

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Explosive properties Not available.

Oxidizing properties Not available.

9.2. Other information

Molecular formula Ca-O

Molecular weight 56,08 g/mol

SECTION 10: Stability and reactivity

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

SECTION 11: Toxicological information

General information Not available.

Information on likely routes of exposure

Inhalation Not available.

Skin contact Not available.

Eye contact Not available.

Ingestion Not available.

Symptoms Not available.

11.1. Information on toxicological effects

Acute toxicity No data available.

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 Not available.

Reproductive toxicity Not available.

Specific target organ toxicity - single exposure Not available.

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 No toxicity data noted for the ingredient(s).

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

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

ADN

Not regulated as dangerous goods.

IATA

14.1. UN number UN1910
14.2. UN proper shipping name Calcium oxide
14.3. Transport hazard class(es)
Class 8
Subsidiary risk -
14.4. Packing group III
14.5. Environmental hazards No.
ERG Code 8L
14.6. Special precautions for user Not available.
Other information
Passenger and cargo aircraft Allowed.
Cargo aircraft only Allowed.

IMDG

14.1. UN number UN1910
14.2. UN proper shipping name CALCIUM OXIDE
14.3. Transport hazard class(es)
Class 8
Subsidiary risk -
14.4. Packing group Not applicable.
14.5. Environmental hazards
Marine pollutant No.
EmS Not available.
14.6. Special precautions for user Not available.

IATA; IMDG



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, as amended

Not listed.

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

Not listed.

Regulation (EC) No. 850/2004 on persistent organic pollutants, Annex I

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V

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.

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

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use

Not regulated.

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.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding, as amended

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances

Not listed.

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work, as amended

Not listed.

Directive 94/33/EC on the protection of young people at work, as amended

Not listed.

National regulations

Not available.

15.2. Chemical safety assessment

Not available.

SECTION 16: Other information

List of abbreviations

Not available.

References

Not available.

Information on evaluation method leading to the classification of mixture

Not available.

Full text of any statements or R-phrases and H-statements under Sections 2 to 15

R35 Causes severe burns.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.

Revision information

None.

Training information

Not available.