

SAFETY DATA SHEET Cerium Oxide Polishing Compound

According to Regulation (EC) No 1907/2006, Annex II, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015.

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

1.1. Product identifier

Product name Cerium Oxide Polishing Compound

Product number C0301, C0305, C0310, C0453, 1222A, C0853

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

Identified uses Polish.

Uses advised againstNo specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier C. R. Laurence of Europe

Charles Babbage Avenue Kingsway Business Park

Rochdale OL16 4NW

+44 (0) 1706 863600 +44 (0) 1706 869860 crl@crlaurence.co.uk

1.4. Emergency telephone number

Emergency telephone 00 800 0421 6144 Monday - Friday 08:00 - 17:00

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335

Environmental hazards Not Classified

Human health See Section 11 for additional information on health hazards.

Environmental The product is not expected to be hazardous to the environment.

2.2. Label elements

Pictogram



Signal word Warning

Hazard statements H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation. H335 May cause respiratory irritation.

Precautionary statements P102 Keep out of reach of children.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.

P302+P352 IF ON SKIN: Wash with plenty of water.

P304+P340 IF INHALED: Remove person to fresh air and keep 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.

P403+P233 Store in a well-ventilated place. Keep container tightly closed. P501 Dispose of contents/ container in accordance with national regulations.

Contains Rare earth fluorides, Bentonite

Supplementary precautionary

P261 Avoid breathing dust.

statements

P264 Wash contaminated skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area.

P321 Specific treatment (see medical advice on this label).

P330 Rinse mouth.

P332+P313 If skin irritation occurs: Get medical advice/ attention.
P337+P313 If eye irritation persists: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Kaolin 50 - 100%

Substance with National workplace exposure limits.

Classification

Not Classified

Rare earth fluorides 25 - <50%

CAS number: 68188-85-2 EC number: 269-166-1

Classification

Acute Tox. 4 - H302 Acute Tox. 4 - H312

Acute Tox. 4 - H332

Skin Irrit. 2 - H315 Eye Irrit. 2 - H319

STOT SE 3 - H335

Cerium Oxide Polishing Compound

Bentonite 2.5 - <5%

CAS number: 1302-78-9 EC number: 215-108-5

Classification

Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335

Aluminium sulphate 1 - <2.5%

Classification
Eye Dam. 1 - H318

The full text for all hazard statements is displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical

personnel.

Inhalation Move affected person to fresh air and keep warm and at rest in a position comfortable for

breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.

Ingestion Rinse mouth thoroughly with water. Place unconscious person on their side in the recovery

position and ensure breathing can take place. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an

unconscious person.

Skin contact Brush off loose particles from skin. Remove affected person from source of contamination.

Rinse immediately with plenty of water.

Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide

apart. Continue to rinse for at least 10 minutes.

Protection of first aidersFirst aid personnel should wear appropriate protective equipment during any rescue.

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

General information See Section 11 for additional information on health hazards. The severity of the symptoms

described will vary dependent on the concentration and the length of exposure.

Inhalation Dust may irritate the respiratory system. Frequent inhalation of dust over a long period of time

increases the risk of developing lung diseases.

Ingestion No specific symptoms known.

Skin contact Prolonged contact may cause dryness of the skin.

Eye contact Dust may cause slight irritation.

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

Notes for the doctor Treat symptomatically.

Specific treatments No special treatment required.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-

extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing

media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards The product is not flammable.

Hazardous combustion

products

Thermal decomposition or combustion products may include the following substances:

Harmful gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting

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Avoid breathing fire gases or vapours. Evacuate area.

Special protective equipment

for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Keep unnecessary and unprotected personn

Keep unnecessary and unprotected personnel away from the spillage. Avoid inhalation of dust. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage.

dealing with a spillage.

6.2. Environmental precautions

Environmental precautions Avoid discharge to the aquatic environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Reuse or recycle products wherever possible. Remove spillage with vacuum cleaner or collect with a shovel and broom, or similar. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of contents/container in accordance with national regulations.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations. Wear protective clothing as described in

Section 8 of this safety data sheet. Avoid handling which leads to dust formation. Keep container tightly sealed when not in use. Avoid contact with skin and eyes. Provide adequate

ventilation.

Advice on general occupational hygiene

Wash promptly if skin becomes contaminated. Remove contaminated clothing and protective equipment before entering eating areas. Wash at the end of each work shift and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product. Change work clothing daily before leaving workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

Kaolin

Long-term exposure limit (8-hour TWA): WEL 2 mg/m³ respirable dust

Rare earth fluorides

Long-term exposure limit (8-hour TWA): WEL $2.5\ mg/m^3$ as F

WEL = Workplace Exposure Limit

8.2. Exposure controls

Protective equipment







Appropriate engineering controls

Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients. Good general ventilation should be adequate to control worker exposure to airborne contaminants.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. The following protection should be worn: Dustresistant, chemical splash goggles.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

Hygiene measures

Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke.

Respiratory protection

Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m3. Wear a suitable dust mask. Particulate filter, type P2.

Environmental exposure

Not regarded as dangerous for the environment.

controls

SECTION 9: Physical and Chemical Properties

Cerium Oxide Polishing Compound

9.1. Information on basic physical and chemical properties

Appearance Powder.

Colour White/off-white.

Odour Odourless.

Odour threshold Not determined.

pH pH (diluted solution): 4 - 10 (100 g/l) @20°C

Melting point Not determined.

Initial boiling point and rangeNot relevant.Flash pointNot relevant.Evaporation rateNot relevant.

Upper/lower flammability or N

Flammability (solid, gas)

explosive limits

Relative density

Not determined.

Not available.

Not determined.

Vapour pressure Not relevant.

Vapour density Not relevant.

Bulk density 1.0 - 1.8 g/cm3 @ 20°C

Solubility(ies) Insoluble in water.

Partition coefficient Not determined.

Auto-ignition temperature Not determined.

Decomposition Temperature Not determined.

Viscosity Not relevant.

Explosive properties No information available.

Oxidising properties Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information No information required.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous

None known.

reactions

10.4. Conditions to avoid

Conditions to avoid There are no known conditions that are likely to result in a hazardous situation.

10.5. Incompatible materials

Cerium Oxide Polishing Compound

Materials to avoid No specific material or group of materials is likely to react with the product to produce a

hazardous situation.

10.6. Hazardous decomposition products

Hazardous decomposition

Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

products

Notes (oral LD50) Acute Tox. 4 - H302 Harmful if swallowed.

ATE oral (mg/kg) 1.672.24

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

ATE dermal (mg/kg) 3,678.93

Acute toxicity - inhalation

Based on available data the classification criteria are not met. Notes (inhalation LC₅₀)

ATE inhalation (dusts/mists

mg/l)

5.02

Skin corrosion/irritation

Animal data Irritating.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity

Based on available data the classification criteria are not met. Genotoxicity - in vitro

Based on available data the classification criteria are not met. Genotoxicity - in vivo

Carcinogenicity

Based on available data the classification criteria are not met. Carcinogenicity

IARC carcinogenicity None of the ingredients are listed or exempt.

Reproductive toxicity

Based on available data the classification criteria are not met. Reproductive toxicity - fertility

Reproductive toxicity -

Based on available data the classification criteria are not met.

development

Specific target organ toxicity - single exposure

STOT - single exposure STOT SE 3 - H335 May cause respiratory irritation.

Target organs Respiratory system, lungs

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Cerium Oxide Polishing Compound

Aspiration hazard

Aspiration hazard Not relevant. Solid.

General information The severity of the symptoms described will vary dependent on the concentration and the

length of exposure.

Inhalation A single exposure may cause the following adverse effects: Irritation of nose, throat and

airway. Difficulty in breathing. Coughing.

Ingestion May cause discomfort if swallowed. Stomach pain. Nausea, vomiting.

Skin contact Redness. Irritating to skin.

Eye contact Irritating to eyes.

Route of exposure Ingestion Inhalation Skin and/or eye contact

Target organs Respiratory system, lungs

Toxicological information on ingredients.

Rare earth fluorides

Toxicological effects No information available.

Acute toxicity - oral

Notes (oral LD50) Harmful if swallowed.

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Notes (dermal LD₅₀) Harmful in contact with skin.

1.5

ATE dermal (mg/kg) 1,100.0

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Harmful if inhaled.

ATE inhalation

(dusts/mists mg/l)

Skin corrosion/irritation

Skin corrosion/irritation Irritating to skin.

Serious eye damage/irritation

Serious eye

Irritating to eyes.

damage/irritation

Specific target organ toxicity - single exposure

STOT - single exposure Irritating to respiratory system.

Bentonite

Toxicological effects No information available.

Skin corrosion/irritation

Animal data Irritating.

Serious eye damage/irritation

Cerium Oxide Polishing Compound

Serious eye damage/irritation Causes serious eye irritation.

Specific target organ toxicity - single exposure

STOT - single exposure STOT SE 3 - H335 May cause respiratory irritation.

Target organs Respiratory system, lungs

Aluminium sulphate

Acute toxicity - oral

LD₅₀ >2000 mg/kg, Oral, Rat REACH dossier information. Based on available data Notes (oral LD₅₀)

the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD50) LD₅₀ >5000 mg/kg, Dermal, Rabbit REACH dossier information. Based on available

data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LC₅₀ >5 mg/l, Inhalation, Rat REACH dossier information. Based on available data

the classification criteria are not met.

Skin corrosion/irritation

Animal data Dose: 0.5 g, 4 hours, Rabbit Erythema/eschar score: No erythema (0). Oedema

score: No oedema (0). REACH dossier information. Based on available data the

classification criteria are not met.

Serious eye damage/irritation

Serious eye

Causes serious eye damage.

damage/irritation Skin sensitisation

Skin sensitisation Local Lymph Node Assay (LLNA) - Mouse: Not sensitising. REACH dossier

information. Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Gene mutation: Negative. REACH dossier information. Based on available data the

classification criteria are not met.

Genotoxicity - in vivo Chromosome aberration: Negative. REACH dossier information. Based on available

data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity -

fertility

One-generation study - NOAEL 1000 mg/kg/day, Oral, Rat P REACH dossier

information. Based on available data the classification criteria are not met.

Reproductive toxicity development

Developmental toxicity: - NOAEL: 3225 mg/kg/day, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Not relevant.

SECTION 12: Ecological Information

Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have

hazardous effects on the environment.

Cerium Oxide Polishing Compound

12.1. Toxicity

Toxicity Aquatic toxicity is unlikely to occur.

Ecological information on ingredients.

Rare earth fluorides

Toxicity There are no data on the ecotoxicity of this product.

Bentonite

Toxicity There are no data on the ecotoxicity of this product.

Aluminium sulphate

Toxicity Based on available data the classification criteria are not met.

Acute aquatic toxicity

Acute toxicity - fish NOEC, 96 hours: >1000 mg/l, Brachydanio rerio (Zebra Fish)

Acute toxicity - aquatic

invertebrates

EC₅₀, 48 hours: >200 mg/l, Daphnia magna

Acute toxicity - aquatic

plants

EC₅o, 72 hours: 14 mg/l, Pseudokirchneriella subcapitata

12.2. Persistence and degradability

Persistence and degradability The degradability of the product is not known.

Ecological information on ingredients.

Rare earth fluorides

Persistence and

degradability

Substance is inorganic.

Bentonite

Persistence and

degradability

The degradability of the product is not known.

Aluminium sulphate

Persistence and

degradability

Substance is inorganic.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not determined.

Ecological information on ingredients.

Rare earth fluorides

Bioaccumulative potential No data available on bioaccumulation.

Bentonite

Bioaccumulative potential No data available on bioaccumulation.

Aluminium sulphate

Bioaccumulative potential No data available on bioaccumulation.

12.4. Mobility in soil

Mobility No data available.

Ecological information on ingredients.

Rare earth fluorides

Mobility No information available.

Bentonite

Mobility No information available.

Aluminium sulphate

Mobility The product is insoluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB

This product does not contain any substances classified as PBT or vPvB.

assessment

Ecological information on ingredients.

Rare earth fluorides

Results of PBT and vPvB

This substance is not classified as PBT or vPvB according to current EU criteria.

assessment

Bentonite

Results of PBT and vPvB

This substance is not classified as PBT or vPvB according to current EU criteria.

assessment

Aluminium sulphate

Results of PBT and vPvB Substance is inorganic. Not relevant.

assessment

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information

The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe

way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and

any local authority requirements.

Cerium Oxide Polishing Compound

Disposal methods

Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of the local water authority.

SECTION 14: Transport information

General

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

SECTION 15: Regulatory information

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

National regulations Health and Safety at Work etc. Act 1974 (as amended).

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009

No. 716).

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment

Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].

EH40/2005 Workplace exposure limits.

EU legislation Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16

December 2008 on classification, labelling and packaging of substances and mixtures (as

amended).

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of

Chemicals (REACH) (as amended).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Cerium Oxide Polishing Compound

Abbreviations and acronyms used in the safety data sheet

ADR: European Agreement concerning the International Carriage of Dangerous Goods by

Road.

ADN: European Agreement concerning the International Carriage of Dangerous Goods by

Inland Waterways.

RID: European Agreement concerning the International Carriage of Dangerous Goods by

Rail.

IATA: International Air Transport Association.

ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.

IMDG: International Maritime Dangerous Goods.

CAS: Chemical Abstracts Service. ATE: Acute Toxicity Estimate.

LC₅o: Lethal Concentration to 50 % of a test population.

LD₅o: Lethal Dose to 50% of a test population (Median Lethal Dose).

EC50: 50% of maximal Effective Concentration.

PBT: Persistent, Bioaccumulative and Toxic substance. vPvB: Very Persistent and Very Bioaccumulative.

Classification abbreviations

and acronyms

Acute Tox. = Acute toxicity Eye Irrit. = Eye irritation Skin Irrit. = Skin irritation

STOT SE = Specific target organ toxicity-single exposure

Classification procedures

according to Regulation (EC)

1272/2008

Acute Tox. 4 - H302: STOT SE 3 - H335: Skin Irrit. 2 - H315: Eye Irrit. 2 - H319: : Calculation

method.

Revision date 07/03/2018

Revision 4

Supersedes date 23/10/2014

SDS number 7108

Hazard statements in full H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eye damage. H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.