

**Cerium Oxide
Polishing Powder**

Date: November 2019

1. IDENTIFICATION OF SUBSTANCES / MIXTURE AND OF THE COMPANY / UNDERTAKING**Product Identifiers**Product Name: **3 Micron Cerium Oxide Polishing Powder**

Product code: OCON-023

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

Identified uses: Abrasive lapping or polishing powder.

Uses advised against: This product is to be used only for the purpose stated above.

Details of the supplier of the safety data sheetManufacturer: Logitech Ltd
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Emergency telephone number

+44 (0) 1389 875444 (09:00 – 17:00 Monday to Friday)

2. HAZARDS IDENTIFICATION**Classification of the substance or mixture**

This material is a substance

Classification according to Regulation (EC) 1272/2008 (EU 'CLP' regulation) as amended:

Not classified as hazardous

Classification according to CHIP and EU Directives 67/548/EEC or 1999/45/EC

Not classified as dangerous

Label elements**Labelling elements according to Regulation (EC) 1272/2008 (EU 'CLP' regulation)**

No labelling required under these regulations

Labelling elements according to CHIP and EU Directives 67/548/EEC or 1999/45/EC

No labelling required under these regulations

Other Hazards

No information available.

3. COMPOSITION / INFORMATION ON INGREDIENTS**Mixtures**

Not applicable this product is a substance:

Chemical name	Identification No.	Classification Regulation (EC) No 1272/2008	Concentration %
Non-hazardous ingredients: Reaction mass of Cerium Dioxide and Lanthanum Fluoride and Lanthanum Oxide	Registration number: 01-2119541810-46-0000	-	80-100
<i>Classification according to CHIP and EU Directives 67/548/EEC or 1999/45/EC:</i> Not classified as dangerous			
<i>Classification according to Regulation (EC) 1272/2008 (EU 'CLP' regulation) as amended:</i> Not classified as dangerous			

4. FIRST AID MEASURES

Description of first aid measures

General advice

Show this safety data sheet to the doctor in attendance.

Inhalation.

Move person to fresh air. If person experiences irritation or difficulty breathing seek medical advice

Ingestion

Drink plenty of water if conscious, seek medical advice, do not leave victim unattended.

Skin contact

Wash area with soap and water then rinse thoroughly with water. If person experiences continued irritation seek medical advice

Eye contact

Wash out with plenty of water. After initial flushing, remove any contact lenses and continue flushing.

Seek medical advice in the event of continued irritation or other complaints.

Most important symptoms and effects, both acute and delayed

No data available

Indication of any immediate medical attention and special treatment needed

No data available

5. FIRE-FIGHTING MEASURES

Extinguishing media

Water

Foam

Not combustible.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

No unsuitable extinguishing media is known.

Special hazards arising from the substances or mixture

Not combustible

Advice for fire fighters

Special protective equipment for firefighters

Gloves

In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal protective equipment

Respirator with a particle filter (EN 143)

Wear suitable gloves.

Safety glasses

For further information refer to section 8 "Exposure controls/personal protection".

Environmental precautions

No harmful effect to the environment is known or expected under normal conditions of use.

Do not flush into surface water or sanitary sewer system.

Methods and materials for containment and cleaning up

Methods for containment

Dam up.

Recovery

Use only non-sparking tools.

Sweep up and shovel into suitable containers for disposal.

Keep in properly labelled containers.

Decontamination/cleaning

Wash off with plenty of water.

Reference to other sections - Refer to protective measures listed in sections 7 and 8

7. HANDLING AND STORAGE

Precautions for safe handling:

Provide sufficient air exchange and/or exhaust in work rooms.

Dust must be extracted directly at the point of origin.

Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

Avoid contact with skin and eyes.

Do not breathe vapours/dust.

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

Wash hand before breaks and at the end of workday.

Conditions for safe storage, including any incompatibilities

Keep in properly labelled containers.

Stable under normal conditions.

To guarantee the quality and properties of the product keep container tightly closed and dry.

No special restrictions on storage with other products.

Packaging material: Plastic materials (polythylene), store in original container.

Stable under recommended storage conditions.

Specific end use(s)

None identified

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Derived No Effect Level (DNEL) / Derived minimal effect level (DMEL)

Product Name	Population	Route of Exposure	Potential Health Effects	Exposure Time	Value	Remarks
Reaction mass of Cerium Dioxide and Lanthanum Fluoride and Lanthanum Oxide	Workers	Dermal	Systemic effects	Long term	8,33 mg/kg bw/day	
		Inhalation	Systemic effects	Long term	3 mg/m ³	
	General population	Dermal	Systemic effects	Long term	4,17 mg/kg bw/day	
		Inhalation	Systemic effects	Long term	1,5 mg/m ³	
		Oral	Systemic effects	Long term	4,17 mg/kg bw/day	

Predicted No Effect Concentration (PNEC)

Product Name	Compartment	Value	Remarks
Reaction mass of Cerium Dioxide and Lanthanum Fluoride and Lanthanum Oxide	Fresh water		No PNEC derivation as no adverse effect was observed (qualitative approach)
	Marine water		No PNEC derivation as no adverse effect was observed (qualitative approach)
	Fresh water sediment		No PNEC derivation as no adverse effect was observed (qualitative approach)
	Marine sediment		No PNEC derivation as no or insufficient data were available at present.
	Soil		No PNEC derivation as no adverse effect was observed (qualitative approach)
	STP		No PNEC derivation as no adverse effect was observed (qualitative approach)
	Oral (secondary poisoning)		No PNEC derivation as there is no potential for bioaccumulation

Exposure controls

Control measures

Engineering measures

- Apply technical measures to comply with the occupational exposure limits.
- Local exhaust
- Dust must be extracted directly at the point of origin.

Individual protection measures

Respiratory protection

- Under normal conditions, in the absence of other airborne contaminants, the following devices should provide protection from this material up to the conditions specified by the appropriate local standard(s):
- Respirator with a particle filter (EN 143)

Hand protection

- For prolonged or repeated contact use protective gloves.

Eye protection

- In case of contact through splashing:
- Safety glasses with side-shields

Skin and body protection

- Long sleeved clothing

Hygiene measures

- Handle in accordance with good industrial hygiene and safety practice.
- Wash hands before breaks and at the end of workday.

Protective measures

- The protective equipment must be selected in accordance with current CEN standards and in cooperation with the supplier of the protective equipment.
- Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards and/or risks that may occur during use.

Environmental exposure controls

- No harmful effect to the environment is known or expected under normal conditions of use.
- Do not flush into surface water or sanitary sewer system

.9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemicals properties

Appearance:	White - cream powder
Odour:	None
Odour threshold:	not applicable
pH:	information not available
Melting point:	>500 °C
Boiling point:	not applicable solid for which the melting point is >300 °C
Flash point:	not applicable – inorganic substance
Evaporation rate	not applicable
Flammability	not flammable
Upper/lower explosive limits	information not available
Vapour pressure	not applicable
Vapour density	not applicable
Density	relative density 6,8 (25 °C)
Solubility in water:	2,23 ug/l (20 °C)
Solubility in other	
Ingredients:	insoluble

Partition coefficient	
Octanol/water:	not applicable
Auto-ignition temperature	information not available
Decomposition temperature	information not available
Viscosity	not applicable
Explosion properties:	not explosive
Oxidising properties:	not considered as oxidising

Other information No additional data available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under normal conditions

Possibility of hazardous reactions

Hazardous polymerisation does not occur.

Difficult to dissolve in acids. Carry out with caution (consult us).

Conditions to avoid

No dangerous reaction known under conditions of normal use.

Avoid dust formation.

Incompatible materials

No dangerous reaction known with common products, strong acids

Hazardous decomposition products

None identified

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

Acute oral toxicity

LD50 Oral : > 2.000 mg/kg - Rat , female

Method: OECD Test Guideline 423

Not classified as hazardous for acute oral toxicity according to GHS.

No mortality observed at this dose.

No effect observed at this dose or concentration

Unpublished internal reports

Acute inhalation toxicity

By analogy

LC50 - 4 h > 5,05 mg/l - Rat , male and female

Method: OECD Test Guideline 403

Not classified as hazardous for acute inhalation toxicity according to GHS.

No mortality observed at this concentration.

No effect observed at this dose or concentration

Unpublished internal reports

Acute dermal toxicity

By analogy

LD50 > 2.000 mg/kg - Rat , male and female

Method: OECD Test Guideline 402

Not classified as hazardous for acute dermal toxicity according to GHS.

No mortality observed at this dose.

No effect observed at this dose or concentration

Unpublished internal reports

Acute toxicity (other routes of administration)

no data available

Skin corrosion/irritation

Rabbit
No skin irritation
Method: according to a standardised method
Not classified as irritating to skin
Unpublished internal reports.

Serious eye damage/eye irritation

By analogy
Rabbit
No eye irritation
Method: according to a standardised method
Not classified as irritating to eyes
Unpublished internal reports
Published data

Respiratory or skin sensitisation

Magnusson and Kligman method - Guinea pig
Does not cause skin sensitisation.
Method: OECD Test Guideline 406
Unpublished internal reports

Mutagenicity

Genotoxicity in vitro

Mutagenicity (Salmonella typhimurium - reverse mutation assay) with and without metabolic activation negative
Method: OECD Test Guideline 471
Unpublished internal reports

By analogy

In vitro gene mutation study in mammalian cells
Strain: Chinese hamster fibroblasts with and without metabolic activation
negative
Method: OECD Test Guideline 476
Unpublished internal reports

Genotoxicity in vivo

By analogy In vivo micronucleus test – Mouse male and female
Oral
Method: OECD Test Guideline 474
negative
Gavage
Unpublished internal reports

Carcinogenicity

no data available

Toxicity for reproduction and development

Toxicity to reproduction/Fertility

By analogy
The product is not considered to affect fertility.
Unpublished internal reports
Published data

Developmental Toxicity/Teratogenicity

By analogy
The product is not considered to be teratogenic.
Unpublished internal reports
Published data

STOT

STOT - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria.

STOT - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure according to GHS criteria.

By analogy

Oral - Rat , male and female

NOEL: 1000 mg/kg/day

Method: OECD Test Guideline 422

Gavage

No systemic toxicity observed.

Unpublished internal reports

By analogy

Inhalation (aerosol) 90 Days - Rat , male and female

NOAEC: 5 mg/m³

Method: OECD Test Guideline 413

No systemic toxicity observed.

Unpublished internal reports

Aspiration toxicity

Not applicable

12. ECOLOGICAL INFORMATION

Aquatic Compartment

Acute toxicity to fish

LL50 - 96 h : > 100 mg/l - Oncorhynchus mykiss (rainbow trout)

semi-static test

Test substance: At saturation in water

Method: OECD Test Guideline 203

No toxicity at the limit of solubility

Unpublished internal reports

Acute toxicity to daphnia and other aquatic invertebrates.

LL50 - 48 h : > 100 mg/l - Daphnia magna (Water flea)

static test

Test substance: At saturation in water

Method: OECD Test Guideline 202

No toxicity at the limit of solubility

Unpublished internal reports

Toxicity to aquatic plants

EL50 - 72 h : > 100 mg/l - Desmodesmus subspicatus (green algae) static test

End point: Growth rate

Test substance: At saturation in water

Method: OECD Test Guideline 201

No toxicity at the limit of solubility

phosphate depletion of the test medium due to complexation with the test item

Unpublished internal reports

Toxicity to microorganisms

By analogy

NOEC - 3 h : \geq 1.003,8 mg/l - activated sludge

Respiration inhibition

Method: OECD Test Guideline 209

Unpublished internal reports

Chronic toxicity to fish

no data available

Chronic toxicity to daphnia and other aquatic invertebrates.

By analogy
No toxicity at the limit of solubility
Unpublished internal reports

Chronic Toxicity to aquatic plants

The product itself has not been tested.

Terrestrial Compartment

Toxicity to soil dwelling organisms

By analogy
This product does not have any known adverse effect on the soil organisms tested.
Unpublished internal reports

Toxicity to terrestrial plants

By analogy
This product does not have any known adverse effects on the flora tested
Unpublished internal reports

M-Factor

Reaction Mass Of Cerium Dioxide And Lanthanum Fluoride And Lanthanum Oxide
(Not applicable)

Persistence and degradability

**Abiotic degradation
Stability in water**

Not applicable insoluble product,

Physical- and photo-chemical elimination

no data available

**Biodegradation
Biodegradability
Degradability assessment**

Not applicable (inorganic substance)
Not applicable inorganic

Bioaccumulative potential

Partition coefficient: n- octanol/water

Not applicable inorganic

Bioconcentration factor (BCF) By analogy Not bioaccumulable. Published data

Mobility in soil

Adsorption potential (Koc) Not applicable

Known distribution to environmental compartments

Ultimate destination of the product : Soil Ultimate destination of the product : Sediment

Results of PBT and vPvB assessment Not applicable (inorganic substance)

Other adverse effects no data available

Ecotoxicity assessment

Acute aquatic toxicity No toxicity at the limit of solubility

Chronic aquatic toxicity No toxicity at the limit of solubility

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Product

Dispose of in accordance with local regulations

Packaging

Clean with cold water

Dispose of in accordance with local regulations

14. TRANSPORT INFORMATION

ADR

Not regulated

RID

Not regulated

IMDG

Not regulated

IATA

Not regulated

AND/ADNR

Not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transport regulations for hazardous materials, it would be advisable to check their validity with your sales office.

15. REGULATORY INFORMATION

This Safety Data Sheet has been prepared in accordance with the requirements of regulation (EC) No 1907/2006 as amended by regulation (EU) No 453/2010.

Workplace exposure Limits given in section 8 have been taken from the UK HSE document: EH40/2005 Workplace exposure limits as amended.

Relevant regulations:

Regulation (EC) 1272/2008 (EU 'CLP' regulation)

Regulation (EC) 790/2009 First Adaptation to Technical Progress (ATP) for CLP regulation

Regulation (EC) 286/2011 Second Adaptation to Technical Progress (ATP) for CLP regulation

EU Directive 67/548/EEC ('Dangerous Substances Directive')

Regulation (EC) No 1907/2006 ('REACH')

Regulation (EU) No 453/2010.

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

None identified

Chemical safety assessment

A Chemical Safety Assessment has not been undertaken for this product.

16. OTHER INFORMATION

The information contained in the Safety Data Sheet is correct to the best of our knowledge at the date of issue. It is intended as a guide for the safe use, handling, storage, transportation and disposal. It is not intended as a warranty or specification. The information relates only to the product specified and may not be suitable for combinations with other materials.