

Material Safety Data Sheet

CERIUM
OXIDE

Date prepared: 8th November 1995

Date revised: December 2008

0CON-023, 0CON-260

1. Identification of the Substance/Preparation and the Company/ Undertaking

Substance or preparation trade name: *Cerium oxide*

Unique reference number(s): *0CON-023, 0CON-260*

Company/undertaking name & address: *Logitech Ltd.,
Erskine Ferry Road, Old Kilpatrick, Glasgow
G60 5EU, Scotland, UK*

Telephone: *(+44) 1389 875444*

Emergency telephone number: *As above*

2. Composition

Substance: *Cerium oxide*

% content: *100*

CAS number: *1306-38-3*

3. Hazards Identification

No specific risk to human health when handled in accordance with good occupational hygiene practice.

The substance presents no particular risk to the environment, provided the disposal requirements (see section 13) and national or local regulations are complied with. It presents NO particular fire or explosion hazard, and according to EEC criteria this product is not classified as a "hazardous substance".

4. First Aid Measures

Inhalation: *Move the person away from the contaminated area and into the fresh air.*

Skin contact: *Rinse with plenty of water.*

Eye contact: *Rinse immediately with plenty of water.*

Ingestion: *Rinse mouth out with water. Seek medical advice if necessary.*

Protection of first-aiders: *Respirator with a particle filter.*

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5. Fire-Fighting Measures

- Suitable extinguishing media: ***Preferably use: water, foam.***
- Unsuitable extinguishing media: ***None. If there is a fire close by, use suitable extinguishing agents.***
- Specific hazards: ***Not combustible; does not present any particular risk in the event of a fire.***

6. Accidental Release Measures

- Personal precautions: ***Avoid contact with eyes.
Personal protective equipment: filtering respiratory protective device, safety glasses, appropriate gloves.***
- Environmental precautions: ***In order to avoid the disposal of material in suspension, transfer into a settling tank. This product does not present any particular risk to the environment.***
- Methods for cleaning: ***Recovery: Collect up the product and place it in a sealable container, suitably labelled.
Cleaning/decontamination: Wash contaminated area with large amounts of water.
Disposal: Dispose of materials or solid residues at an authorised centre.***

7. Handling and Storage

- Handling: ***Does not necessitate any specific/particular technical measures, other than those concerning the handling of powders. Avoid the formation or spread of dust in the atmosphere. Use only in well-ventilated areas.***
- Storage: ***Does not require any specific or particular technical measures. The product is stable under normal storage conditions, and must only be kept in the supplier's packaging.
Recommended packaging materials: plastic materials (polyethylene).
Incompatible products: Acids***

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8. Exposure Controls

Engineering measures:	Ensure good ventilation of the work station.
Exposure control limits, and source:	<u>VME:</u> 10mg/m³ <u>Inhalable dust - VME:</u> 5mg/m³ <u>TLV (TWA):</u> 10mg/m³ <u>UK (recommended):-</u> <u>Inhalable dust:</u> 10mg/m³ <u>Respirable dust:</u> 5mg/m³
Surveillance procedures:	Limits (UK): Rhône-Poulenc Limits: OEL: 0.5mg/m³ (Long term exposure limit - 8h TWA reference period) This value is based on the ionising potential of the product. Provided dust exposure is limited to this level, the 1985 Ionising Radiation Regulations do not apply. Monitor the atmosphere at regular intervals.
Respiratory protection:	Respiratory protective device with a particle filter.
Skin and body protection:	Protective gloves made of rubber, protective clothing.
Eye protection:	Safety spectacles.
Hygiene measures:	Wash as often as necessary.
Collective emergency equipment:	Safety shower, eye fountain.

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9. Physical and Chemical Properties

Appearance:	<i>Fine, beige powder.</i>
Average particle size:	<i>1-2µm</i>
Odour:	<i>None.</i>
pH:	<i>N/A (insoluble product)</i>
Melting point:	<i>2600°C</i>
Flashpoint (°C):	<i>N/A</i>
Flammability:	<i>N/A</i>
Autoflammability:	<i>N/A</i>
Explosive properties:	<i>N/A</i>
Oxidising properties:	<i>Non oxidising material according to EEC criteria.</i>
Vapour pressure:	<i>N/A</i>
Apparent specific gravity:	<i>1.3-1.7kg/dm³</i>
Solubility (in water):	<i>Practically insoluble.</i>
Solubility (in organic solvents):	<i>Insoluble in common solvents.</i>

10. Stability and Reactivity

Stability:	<i>Stable at ambient temperature and under normal conditions of use.</i>
Conditions to avoid:	<i>No dangerous reaction known under normal conditions of use. May explode under specific conditions.</i>
Further information:	<i>No dangerous reaction known with common products. When dissolving in acids, carry out with caution.</i>

11. Toxicological Information

Acute toxicity:	<i>Dust (particles): LC50 inhalation (Rat) / 4h: > 5mg / l LD50 skin (Rat): > 2000mg / kg LD50 oral (Rat): > 5000mg / kg</i>
Local effects:	<i>Powdery product. Slightly irritating to the eyes.</i>

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12. Ecological Information

Mobility:	<i>Practically insoluble product, readily forms deposits.</i>
Persistence/Degradability:	<i>Inert mineral product. Not degradable.</i>
Expected behaviour of the product:	<i>Ultimate destination of the product: SOIL and SEDIMENT.</i>
Ecotoxicity:	<i><u>Effects on the aquatic environment:</u> No information available.</i>

13. Disposal Considerations

Waste from residues:	<i>Dispose of materials or solid residues at a licensed site.</i>
Contaminated packaging:	<i>Clean with water. Entrust the thoroughly decontaminated packaging to a licensed waste contractor.</i>

NOTE: The user's attention is drawn to the possible existence of local regulations regarding disposal.

14. Transport Information

International regulations:	<i>Land: Rail/road (RID/ADR) - NOT restricted Sea (IMO/IMDG) - NOT restricted Air (ICAO-IATA) - NOT restricted</i>
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NOTE: The above regulatory prescriptions are 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 Logitech.

15. Regulatory Information

EEC labelling regulations:	<i>Mandatory labelling (prescribed) of hazardous substances: not applicable.</i>
Identification of the hazardous product:	<i>Substance does not appear on the EEC hazardous substances list (Appendix 1 of the modified EEC directive 67/547).</i>

NOTE: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the Safety Data Sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. The user's attention is drawn to the possible existence of national, international and local regulations or provisions governing the product.

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UK National Regulations: ***Handle in accordance with relevant British legislation:
Control of Substances Hazardous to Health Regulations 1988.
Environmental Hygiene Guidance: EH/40
Occupational Exposure Limits (revised annually).***

NOTE: THIS DATA SHEET DOES NOT CONSTITUTE A USER'S ASSESSMENT OF WORKPLACE RISK AS REQUIRED BY HSW ACT, COSHH, MANAGEMENT OF HEALTH AND SAFETY AT WORK REGULATIONS, OR OTHER HEALTH AND SAFETY LEGISLATION.

16. Other Information

Recommendations/restrictions: ***The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.***

Use: ***Abrasive for lapping and polishing.***

Registration numbers: ***All the constituents of this preparation are registered in the EINECS inventory.
All the components of this preparation are registered in the TSCA inventory.
All the components of this preparation are registered in the MITI list (Japan).***

Further product information: ***Chemical formula: CeO₂
Molecular mass: 172.1g***

Sources of key data used to compile Safety Data Sheet: ***Croner's Hazard Information and Packaging, 3/95***

Abbreviations: ***N/E: Not established
N/A: Not available***

The data contained in this Safety Data Sheet has been supplied as required by the Chemicals (Hazard Identification and Packaging) Regulations 1993, as amended, for the purpose of protecting the health and safety of industrial and commercial users who are deemed capable of understanding and acting on the information provided.

Please ensure that it is passed to the appropriate person(s) in your company, who are capable of acting on the information.