

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

- Trade name OPALINE (TM) POLISSAGE
- CAS-No. 1306-38-3
- REACH : Registration number 01-2119488673-24-0000

1.2 Relevant identified uses of the substance or mixture and uses advised against**Uses of the Substance/Mixture**

- Polishing.
- Manufacture of computer, electronic and optical products, electrical equipment
- Ceramics.

1.3 Details of the supplier of the safety data sheet**Company**

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Z.I. 26 rue Chef de Baie
17041 La Rochelle Cedex 1 - France
Tel : +33 (0)5.46.68.34.56

E-mail address

manager.sds@solvay.com

1.4 Emergency telephone number

+44(0)1235 239 670 [CareChem 24]

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification (Regulation (EC) No 1272/2008)**

- The product is not classified as dangerous according to Regulation (EC) No. 1272/2008.

2.2 Label elements**Regulation (EC) No 1272/2008**

- The product is not classified as dangerous according to Regulation (EC) No. 1272/2008.

2.3 Other hazards which do not result in classification

- Slightly irritating to eyes.
- NO particular fire or explosion hazard.

SECTION 3: Composition/information on ingredients**3.1 Substance**

- Chemical nature rare earth(s) oxide(s)

Information on Components and Impurities

Chemical Name	Identification number	Classification Regulation (EC) No 1272/2008	Concentration [%]
Non-hazardous ingredients			
cerium dioxide	CAS-No. : 1306-38-3	Not classified	> 85
	EINECS-No. : 215-150-4		
Registration number: 01-2119488673-24-0000			
self classification			

3.2 Mixture

- Not applicable, this product is a substance.

SECTION 4: First aid measures**4.1 Description of first aid measures****General advice**

- Show this safety data sheet to the doctor in attendance.

In case of inhalation

- If breathed in, move person into fresh air.
- If symptoms persist, call a physician.

In case of skin contact

- Wash off with soap and water.
- If skin irritation persists, call a physician.

In case of eye contact

- Rinse with running water whilst keeping the eyes wide open (at least 15 minutes)
- If eye irritation persists, consult a physician

In case of ingestion

- If conscious, drink plenty of water.
- Never give anything by mouth to an unconscious person.
- Seek medical advice.
- Do not leave the victim unattended.

4.2 Most important symptoms and effects, both acute and delayed

- no data available

4.3 Indication of any immediate medical attention and special treatment needed

- no data available

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable 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.

Unsuitable extinguishing media

- None known.

5.2 Special hazards arising from the substance or mixture

- Not combustible.

5.3 Advice for firefighters**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.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

- Respirator with a particle filter (EN 143)
- Wear suitable gloves.
- Safety glasses

6.2 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.

6.3 Methods and materials for containment and cleaning up***Methods for containment***

- Dam up.

Recovery

- Sweep up and shovel into suitable containers for disposal.
- Keep in properly labelled containers.

Decontamination/cleaning

- Wash off with plenty of water.

6.4 Reference to other sections

- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

- Provide sufficient air exchange and/or exhaust in work rooms.
- Dust must be extracted directly at the point of origin.
- Avoid contact with skin and eyes.
- Do not breathe vapours/dust.
- Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

Hygiene measures

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

7.2 Conditions for safe storage, including any incompatibilities**Technical measures/Storage conditions**

- Stable under normal conditions.
- To guarantee the quality and properties of the product keep :
 - Keep container tightly closed and dry.
- Keep away from: No special restrictions on storage with other products.

Packaging material**Suitable material**

- Plastic materials (polyethylene).

Unsuitable material

- None known.

Remarks

- Store in original container.

Requirements for storage rooms and vessels

- Stable under recommended storage conditions.

7.3 Specific end use(s)

- no data available

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****8.2 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**

- Use a respirator with an approved filter if a risk assessment indicates this is necessary.
- Respirator with a particle filter (EN 143)

Hand protection

- For prolonged or repeated contact use protective gloves.

Eye protection

- Safety glasses

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.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

<u>Appearance</u>	<u>Form:</u> powder <u>Physical state:</u> solid <u>Colour:</u> white creamy white. yellow
<u>Particle size</u>	< 5 µm
<u>Odour</u>	None
<u>Odour Threshold</u>	no data available
<u>pH</u>	Not applicable insoluble product
<u>Melting point/range</u>	2.600 °C
<u>Boiling point/boiling range</u>	Not applicable solid for which the melting point is > 300 °C Not applicable
<u>Flash point</u>	Not applicable mineral product
<u>Evaporation rate (Butylacetate = 1)</u>	Not applicable
<u>Flammability (solid, gas)</u>	The product is not flammable.
<u>Flammability/Explosive limit</u>	<u>Lower flammability/explosion limit:</u> Not applicable, solid <u>Upper flammability/explosion limit:</u> Not applicable, solid
<u>Auto-ignition temperature</u>	> 400 °C Relative self-ignition temperature for solids Method: EU Test Guideline A16 not auto-flammable, Structure-activity relationship (SAR)
<u>Vapour pressure</u>	Not applicable
<u>Vapour density</u>	Not applicable
<u>Density</u>	no data available <u>Bulk density:</u> 1,400 - 1,900 kg/m3

Tamped product

Relative density: 6,1 (25 °C)**Solubility**Water solubility:
< 0,123 µg/l insolubleSolubility in other solvents:
common organic solvents : insoluble**Partition coefficient: n-octanol/water**

Not applicable mineral product

Thermal decomposition

no data available

ViscosityViscosity, dynamic : Not applicable, solidViscosity, kinematic : Not applicable, solidFlow time : Not applicable**Explosive properties**Not explosive
Method : EU Test Guideline A14negative
Thermal sensitivitynegative
Mechanical sensitivity (shock)negative
Mechanical sensitivity (friction)**Oxidizing properties**Oxidizing properties (solids)
Method: EU Test Guideline A17
Non oxidizing material according to EC criteria**9.2 Other information****Oxidation/Reduction Potential**

Non oxidizing material according to EC criteria

Surface tension

not determined

Molecular weight

172,12 g/mol

SECTION 10: Stability and reactivity**10.1 Reactivity**

- Stable under recommended storage conditions.

10.2 Chemical stability

- Stable under normal conditions.

10.3 Possibility of hazardous reactions

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

10.4 Conditions to avoid

- No dangerous reaction known under conditions of normal use.
- Avoid dust formation.

10.5 Incompatible materials

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- No dangerous reaction known with common products.
- Strong acids

10.6 Hazardous decomposition products

- no data available

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

Acute oral toxicity LD50 : > 5.000 mg/kg - Rat
No mortality observed at this dose.
Unpublished internal reports

Acute inhalation toxicity LC50 - 4 h > 5,05 mg/l - Rat
No mortality observed at this dose.
Unpublished internal reports

Acute dermal toxicity LD50 > 2.000 ppm(m) - Rat
No mortality observed at this dose.
Unpublished internal reports

Acute toxicity (other routes of administration) no data available

Skin corrosion/irritation

Rabbit
No skin irritation
Unpublished internal reports

Serious eye damage/eye irritation

Rabbit
Mild eye irritation

Respiratory or skin sensitisation

Magnusson and Kligman method - Guinea pig
negative
In case of skin contact
Unpublished internal reports

Local lymph node assay
negative
Unpublished internal reports

Mutagenicity**Genotoxicity in vitro**

Mutagenicity (Salmonella typhimurium - reverse mutation assay)
with and without metabolic activation
negative
Unpublished reports

V79/HPRT test
Strain: Mammalian cells
with and without metabolic activation
negative
Unpublished internal reports

Genotoxicity in vivo

In vivo micronucleus test negative
Unpublished internal reports

Carcinogenicity no data available

Toxicity for reproduction and development

Toxicity to reproduction/Fertility Reproduction/developmental toxicity screening test - Rat
Oral exposure
NOEL parent: 1.000 mg/kg
no impairment of fertility has been observed
Unpublished internal reports

Developmental Toxicity/Teratogenicity Rat
Oral exposure
NOEL teratogenicity: 1.000 mg/kg
No effect observed on development
Unpublished internal reports

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.

Inhalation 90 Days - Rat
NOAEL: 5 mg/m³
No systemic toxicity observed.
Unpublished internal reports

Oral exposure 39 Days - Rat , males
NOEL: 1000 mg/kg
Method: OECD Test Guideline 422
No systemic toxicity observed.
Unpublished internal reports

Oral exposure 47 Days - Rat , females
NOEL: 1000 mg/kg
Method: OECD Test Guideline 422
No systemic toxicity observed.
Unpublished internal reports

Aspiration toxicity Not applicable

SECTION 12: Ecological information

12.1 Toxicity

Aquatic Compartment

Acute toxicity to fish LC50 - 96 h : > 100 mg/l - Brachydanio rerio (zebrafish)
Unpublished internal reports

Acute toxicity to daphnia and other aquatic invertebrates. EC50 - 48 h : > 100 mg/l - Daphnia magna (Water flea)
Unpublished internal reports

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Toxicity to aquatic plants	EC50 - 72 h : > 100 mg/l - Desmodesmus subspicatus (green algae) Unpublished internal reports
Toxicity to microorganisms	EC50 - 3 h : > 1.003,8 mg/l - activated sludge Unpublished internal reports
Chronic toxicity to daphnia and other aquatic invertebrates.	NOEC: > 100 mg/l - 21 d - Daphnia magna (Water flea) Unpublished internal reports

Terrestrial Compartment

Toxicity to soil dwelling organisms	This product does not have any known adverse effect on the soil organisms tested. NOEC: > 1.000 mg/kg - 14 d - Eisenia fetida (earthworms) Unpublished internal reports NOEC: > 1.000 mg/kg - 28 d - soil micro-organisms Unpublished internal reports
Toxicity to terrestrial plants	This product does not have any known adverse effects on the flora tested NOEC: > 1.000 mg/l - 17 Days - Avena sativa (oats) Unpublished internal reports NOEC: > 1.000 mg/l - 17 Days - Lactuca sativa (lettuce) Unpublished internal reports NOEC: > 1.000 mg/l - 18 Days - Brassica rapa Unpublished internal reports

12.2 Persistence and degradability**Biodegradation**

Biodegradability	Not applicable mineral product
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12.3 Bioaccumulative potential

Bioconcentration factor (BCF)	Not bioaccumulable. Bibliography By analogy
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12.4 Mobility in soil

Known distribution to environmental compartments	Ultimate destination of the product : Soil Ultimate destination of the product : Sediment
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12.5 Results of PBT and vPvB assessment

 cerium dioxide	Not applicable (inorganic substance)
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12.6 Other adverse effects no data available

Ecotoxicity assessment

Acute aquatic toxicity This product has no known ecotoxicological effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product Disposal

- Dispose of in accordance with local regulations.

Advice on cleaning and disposal of packaging

- Clean with cold water.
- Dispose of in accordance with local regulations.

SECTION 14: Transport information

ADR

not regulated

RID

not regulated

IMDG

not regulated

IATA

not regulated

ADN/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.

SECTION 15: Regulatory information

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

Notification status

Inventory Information	Status
United States TSCA Inventory	- Listed on Inventory
Canadian Domestic Substances List (DSL)	- Listed on Inventory
Australia Inventory of Chemical Substances (AICS)	- Listed on Inventory
Japan. CSCL - Inventory of Existing and New Chemical Substances	- Listed on Inventory
Korea. Korean Existing Chemicals Inventory (KECI)	- Listed on Inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	- Listed on Inventory
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	- Listed on Inventory

15.2 Chemical Safety Assessment

- no data available

SECTION 16: Other information

NB: In this document the numerical separator of the thousands is the "." (point), the decimal separator is "," (comma).

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.