

MATERIAL SAFETY DATA SHEET

1. Identification of Substance/preparation: **SILICA GEL ORANGE INDICATING**
(Product Codes 404-5100, 404-5300 and 404-5250)

Company Identification: as above

2. Chemical Composition: synthetic, amorphous silica impregnated with iron compounds

Silica >93% Cas No: 7631-86-9 EINECS: 231-545-4
Iron Compounds <5%

3. Hazards Identification:

The product is very absorbent and may have a drying effect on skin and eyes. Sensitisation of skin and respiratory system possible. Exposure to dust could be harmful. Evolves heat on contact with water.

4. First Aid Measures:

1. After inhalation: remove to fresh air. Keep warm and at rest. Obtain medical attention if symptoms develop
2. After skin contact: wash with water, if skin irritation persists seek medical advice
3. After eye contact: flush with water, if irritation persists seek medical advice
4. After ingestion: give water to drink, seek medical advice. Do not induce vomiting

5. Fire Fighting Measures:

1. Products of combustion: NONE
2. Fire fighting procedures/extinguishing media: not applicable unused material will not burn

6. Accidental Release Measures:

1. Personal Protection: respiratory protection if dusty
eye and hand protection
2. Methods for cleaning up: sweep up, or preferably vacuum up and collect in suitable container for recovery or disposal. Avoid raising dust.

7. Handling and Storage:

1. Precautions during handling: avoid raising dust, vacuum up dust sources, prevent static electric sparks.
2. Precautions during storage: store in sealed containers in a dry place.

8. Exposure Controls/Personal Protection

1. General – respiratory: effective dust mask
 - hand: protective gloves
 - eye: goggles, safety glasses
 - skin: overall

2. Exposure Limits:

Silica amorphous

UK EH40:OES	8hr TWA	6mg/m ³	total inhalable dust
UK EH40:OES	8hr TWA	2.4mg/m ³	respirable dust
ACGIH:TLV	8hr TWA	10mg/m ³	

Iron compounds (as FE)

UK EH40:OES	8hr TWA	1mg/m ³
UK EH40:OES	15min TWA	2mg/m ³
ACGIH:TLV	8hr TWA	1mg/m ³

9. Physical and Chemical Properties

Appearance – orange granules

- turn colourless/pale yellow on absorption of water

Odour – NONE

pH – 2 – 10 at 5% w/w in water

Solubility – insoluble in water and solvents

Boiling Point/Melting Point – not applicable

Flammability/Flash Point – not applicable

10. Stability and Reactivity

Stability – stable, hygroscopic

Conditions/Materials to avoid – evolves heat in contact with water

- avoid temperatures in excess of 150°C

Hazardous decomposition products – oxides of sulphur

- oxides of nitrogen

11. Toxicological Information:

Acute toxicity

Silica, amorphous – oral, LD50 >15,000 mg/kg rat

Effects of exposure:

Inhalation – Amorphous silica has little adverse effect on lungs and does not produce significant disease or toxic effect when exposure is kept below the permitted limits. Existing medical conditions (e.g. Asthma, bronchitis) may be aggravated by exposure to dust.

Eyes – dust may cause irritation

Skin – heat may be evolved, when in contact with water

- may have a drying effect

Carinogenicity – Amorphous silica is not classified as carcinogenic to humans

12. Ecological/Biological Information

Amorphous Silica is chemically and biologically inert. It is not degradable. By its insolubility in water there is a separation at every filtration and sedimentation process.

13. Disposal Considerations

Disposal according to national and local regulations. This material is not classified as hazardous waste under the EEC Directive 91/689. This material is not classified as special waste under the UK Special Waste Regulations 1996 and can be disposed of by landfill at an approved site.

14. Transport Information

Not dangerous goods according to the transport regulations of UK Road, RID-ADR, IMO, MARPOL, ICAO. Not classified as dangerous goods under the United Nations Transport Regulations. No special packaging requirements.

15. Regulatory Information

EC Classification - This product is not classified as dangerous
S Phrases – Handle in accordance with good industrial hygiene and safety practices. Avoid inhalation of dust.

16. Other Information

As with any material general industrial hygiene and housekeeping standards should be observed.

This information is given in good faith and is based on information supplied by manufacturers of the material indicated. The suitability of the product for any particular use is not suggested or implied. The data does not constitute a specification and any properties shown are not guaranteed.