

SOFNOFIL



Sofnofil is a general odour absorbent for use in the air purification industry







Applications

Sofnofil is a chemical absorbent comprising a high activity alumina base impregnated with potassium permanganate. It removes gaseous chemical contaminants by a combined process of adsorption, absorption, oxidation and neutralisation.

Specific applications include:

Removal of sulphur gases from paper mills

- Protecting computer installations from corrosive gases
- Emission control in sewage treatment facilities
- Trapping off gases from electronic component
- manufacturing process
- Purification of re-circulating diver gas

Properties

The unique manufacturing process presents high levels of permanganate on an open, accessible pore structure within the Sofnofil beads.

The following properties result:

High mechanical strength Low dust formation Low air flow resistance

High contaminant capacity



Specifications

Colour: Shape: Size of bead: Bulk density: Moisture content:

Purple Spherical 2.5 5.00mm 800kg/m³ H₂O: 15-25%

*Additional particle size available on request.

Packaging

Sofnofil is available in 20kg kegs. A full pallet holds 32 kegs and measures: 120cm(w) \times 100cm(d) \times 110cm(h)

Quality

Molecular Products Ltds aim is to manufacture chemical products which satisfy completely the needs of our customers. All products are rigorously tested to ensure conformance to the specification. Our activities comply to the requirements of ISO9001:2008.







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| Sa | fety Dat | a Sheet | | |
|-----|------------------------------|--|---|---------------|
| _ | ofnofil | | Safety Data Ref: 22 Initial issue date: 07 October 2014 Revision date: 01 June 2015 Version number: 11 | moiecular |
| | DENT.FICATION C | DF-SL'BSTANCE / PREPARATION AND O | FTUE COMPANY | |
| 1.1 | Product identifier | Sofnofil (impregnated activated alumina) | | 100 |
| 1.2 | Relevant use(s)/misuse(s) | An odour absorbent for industrial air purification (e.g. in paper mills, sewage treatment) | | |
| 1.3 | SDS supplier | Molecular Products Ltd, Parkway, Harlow | w Business Park, Harlow, Essex, CM19 5FR, UK | |
| 14 | Emorgonou contact | +44 (0) 1279 445111 (office hours) / +44 | 4 (0)1865 407333 (24 hour emergency number, Engl | ish speaking) |

| 1.4 | Emergency contact | trevor@rising-hsande.co.uk (competent person email) | | |
|-----|------------------------------|--|--|--|
| | Emergency contact (other) | China +86 512 8090 3042, China (NRCC): +86 532 8388 9090, Mexico: +52 555 004 8763, Chile: +56 225 829 336, Brazil: +55 3197 5891 | | |
| | | FICATION | | |
| 21 | | | | |

| 2.1 | Classification of the substance or mixture | | | | | |
|-------|--|-----------------------|--------------------|---|------|-----|
| 2.1.1 | Classification according to Regulation (EC) No 1272/2008 (CLP/GHS) Not classified | | | | | |
| 2.1.2 | See section 16 for | full text of H stater | ments | and the second se | | |
| 2.2 | Labelling elements | | | | | |
| 2.2.1 | Labelling in accord | ance with EC Regul | ation No 1272/2008 | (CLP/GHS) | | NL |
| | Pictogram None | | | Signal word | None | 0 0 |
| | Hazard statements | None | | | | |
| | Precautionary statements None | | | | | |
| 2.3 | Other hazards | | | | | |
| | Dust may cause in | ritation of skin and | eyes | | | |

| COME DISTION / INFORMATION ON INGREDIENTS | | | | |
|---|--------------|---------------|--|---|
| Chemical characterisation | Martine (PT) | 6 | 100 C | (· · · · · · · · · · · · · · · · · · · |
| Chemical name | CAS-No | EINECS/ELINCS | Classification | Concentration |
| Aluminium oxide | 1344-28-1 | 215-619-6 | Not classified | > 80% |
| Potassium permanganate | 7722-64-7 | 231-760-3 | CLP: Ox. Sol. 2 H272; Acute Tox. 4 H302; Aquatic Acute I H400; Aquatic Chronic I H410 (see section 16) | < 6% |

| 14 | AID MEASUNES | | | |
|-----|------------------------------------|---|--|--|
| 4.1 | Description of measures | | | |
| | Inhalation | Remove casualty to fresh air and provide warmth and rest | | |
| | Skin contact | Clean areas of skin affected with soap and plenty of water. If necessary, seek medical advice | | |
| | Eye contact | Wash out eye thoroughly with plenty of water until irritation subsides; if necessary, consult an eye specialist/ophthalmologist | | |
| | Ingestion | If product is swallowed, do not induce vomiting. Drink plenty of water and, if necessary, seek medical advice | | |
| 4.2 | Most important effects/symptoms | None known | | |
| 4.3 | Immediate/special treatment | Treatment as described above | | |

| | RE T.GI ITING MEASURes | |
|-----|--------------------------|---|
| 5.1 | Extinguishing media | To suit local surroundings (e.g. chemical powder, carbon dioxide, dry sand, water) |
| 5.2 | Special hazards | Product is not flammable. No hazards except low volumes of oxygen may be released in a fire |
| 5.3 | Advice for fire fighters | Self-contained breathing apparatus may be required |





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| .1 | ACCIDENITAL RELIASE MEASURES | | | | | | | |
|---|---|---|--|---|---|--|--|--|
| | Personal precautions | Adhere to p | dhere to personal protective measures. Avoid inhalation of dust | | | | | |
| .2 | Environmental precautions | Do not allo | not allow to get into waste water or waterways; if this occurs, inform the relevant water authority at once | | | | | |
| .3 | Methods and materials for | | of spillage, take up mechanically ptective measures | v (e.g. sweep or vacuu | um up) into tightly closed containers. Adher | | | |
| .4 | cleaning up Reference to other sections | | 8 for personal protective equipr | ment | 17 E | | | |
| | | | Contraction of the second second | | | | | |
| 4 | ANDLING AND STORAGE | | | | | | | |
| 7.1 | Precautions for safe handling | and the second se | | | woid the raising and deposition of dust | | | |
| 7.2 | Conditions for safe storage | Ensure ad dry | equate ventilation of the storage | e area. Keep containe | ers tightly closed, at temperatures < 190°C | | | |
| 7.3 | Specific end use(s) | | absorbent for industrial air pur | ification | A CANA | | | |
| | | | | | | | | |
| | EXPOSURE CONTROLS / PEP | | | | | | | |
| 8. I | Workplace Exposure Limits (M | /ELs) have be | | 2011) | | | | |
| | LTEL (8 hour TWA) | | 10 mg/m ³ | | Data for inhalable aluminium oxide dust | | | |
| | LTEL (8 hour TWA) | | 4 mg/m [£] | | Data for respirable aluminium oxide dust | | | |
| 3.2 | Exposure controls | D 11 | | | | | | |
| | Engineering controls | | dequate ventilation (e.g. local ex normal standards for handling ch | | | | | |
| | Personal protection | Wash har | ds before breaks and after worl | | | | | |
| | | | alation of dust if raised sonal protective equipment app | ropriate to the task (| see below) | | | |
| - 11 | Eye protection | | gles if risk of eye contamination | | | | | |
| - | Skin protection | | ubber gloves (consider your ow on, tasks undertaken) | n risk assessment; e.g | g. breakthrough times, rates of diffusion and | | | |
| - | Respiratory protection | | dust mask for dust if ventilation | n is insufficient | | | | |
| | Other protection | Protective | | | | | | |
| | | 1 | | | | | | |
| | PHYSICAL AND CHEMICAL F | ROPERTIES | | | | | | |
| 9.1 | Basic physical and chemical pro | perties | | | | | | |
| | Physical form | Solid | | Colour | Purple (brown after use) | | | |
| | Odour | Odourles | 5 | рН | Not determined | | | |
| 1 | Boiling pt/range | Not dete | rmined | Melting pt/range | Not determined | | | |
| | Flash point | Not appli | | Relative density | 3.3 g/cm ³ | | | |
| | Water solubility | | assium permanganate will to give purple/brown colour | Odour threshold | Not applicable | | | |
| | Evaporation rate | Not appli | | Flammability | Not applicable | | | |
| | | Not appli | cable | Vapour pressure | | | | |
| | Explosion limits | 1 tot appli | | rupour pressure | Not applicable | | | |
| | | | | Partition coeff. | | | | |
| | Vapour density | Not appli | cable | Partition coeff. LogPoct/water | Not applicable | | | |
| | Vapour density Auto-ignition temperature | Not appli Not appli | cable | Partition coeff. LogPoct/water Viscosity | Not applicable Not applicable | | | |
| | Vapour density Auto-ignition temperature Explosive properties | Not appli Not appli Not dete | cable cable cable | Partition coeff. LogPoct/water | Not applicable Not applicable | | | |
| 9.2 | Vapour density Auto-ignition temperature Explosive properties Decomposition temperature | Not appli Not appli Not dete Not dete | cable cable rmined rmined | Partition coeff. LogPoct/water Viscosity | Not applicable Not applicable | | | |
| 9.2 | Vapour density Auto-ignition temperature Explosive properties | Not appli Not appli Not dete | cable cable rmined rmined | Partition coeff. LogPoct/water Viscosity | Not applicable Not applicable | | | |
| 9.2 | Vapour density Auto-ignition temperature Explosive properties Decomposition temperature | Not appli Not appli Not dete Not dete | cable cable rmined rmined | Partition coeff. LogPoct/water Viscosity | Not applicable Not applicable | | | |
| 0 | Vapour density Auto-ignition temperature Explosive properties Decomposition temperature Other information | Not appli Not appli Not dete Not dete | cable cable rmined rmined | Partition coeff. LogPoct/water Viscosity | Not applicable Not applicable | | | |
| 10.1 | Vapour density Auto-ignition temperature Explosive properties Decomposition temperature Other information | Not appli Not appli Not dete Not dete | cable cable mined mined wwn | Partition coeff. LogPoct/water Viscosity Oxidising propertie | Not applicable Not applicable | | | |
| 10.1 10.2 | Vapour density Auto-ignition temperature Explosive properties Decomposition temperature Other information STABILTY AND REACTIVITY Reactivity | Not appli Not appli Not dete Not dete | cable cable rmined rmined own None known | Partition coeff. LogPoct/water Viscosity Oxidising propertie | Not applicable Not applicable | | | |
| 10.1 10.2 10.3 | Vapour density Auto-ignition temperature Explosive properties Decomposition temperature Other information STABILET: AND REACTIVITY Reactivity Chemical stability | Not appli Not appli Not dete Not dete | cable cable rmined rmined wm None known Stable under normal condition | Partition coeff. LogPoct/water Viscosity Oxidising propertie Sof handling not occur | Not applicable Not applicable Not determined | | | |
| 10.1 10.2 10.3 10.4 | Vapour density Auto-ignition temperature Explosive properties Decomposition temperature Other information STABILET' AND REACTIVITY Reactivity Chemical stability Hazardous reactions | Not appli Not appli Not dete Not dete | cable cable rmined rmined own None known Stable under normal condition Hazardous polymerisation will | Partition coeff. LogPoct/water Viscosity Oxidising propertie Sof handling not occur | Not applicable Not applicable Not determined | | | |
| 10.1 10.2 10.3 10.4 10.5 | Vapour density Auto-ignition temperature Explosive properties Decomposition temperature Other information STABILTY AND REACTIVITY Reactivity Chemical stability Hazardous reactions Conditions to avoid | Not appli Not appli Not dete Not dete | cable cable mined mined wm None known Stable under normal condition Hazardous polymerisation will Contact with oxidisable mater | Partition coeff. LogPoct/water Viscosity Oxidising propertie Sof handling not occur | Not applicable Not applicable Not determined | | | |
| 9.2 10.1 10.2 10.3 10.4 10.5 10.6 | Vapour density Auto-ignition temperature Explosive properties Decomposition temperature Other information STABILTY AND REACTIVITY Reactivity Chemical stability Hazardous reactions Conditions to avoid Incompatible material Hazardous decomposition proc | Not appli Not appli Not dete Not dete | cable cable rmined rmined wm None known Stable under normal condition Hazardous polymerisation will Contact with oxidisable mater Oxidisable materials | Partition coeff. LogPoct/water Viscosity Oxidising propertie Sof handling not occur | Not applicable Not applicable Not determined | | | |
| 10.1 10.2 10.3 10.4 10.5 10.6 | Vapour density Auto-ignition temperature Explosive properties Decomposition temperature Other information STABILT' AND REACTIVITY Reactivity Chemical stability Hazardous reactions Conditions to avoid Incompatible material Hazardous decomposition proc | Not appli Not appli Not dete None kno | cable cable rmined rmined wm None known Stable under normal condition Hazardous polymerisation will Contact with oxidisable mater Oxidisable materials | Partition coeff. LogPoct/water Viscosity Oxidising propertie Sof handling not occur | Not applicable Not applicable Not determined | | | |
| 10.1 10.2 10.3 10.4 10.5 10.6 | Vapour density Auto-ignition temperature Explosive properties Decomposition temperature Other information STABILET' AND REACTIVITY Reactivity Chemical stability Hazardous reactions Conditions to avoid Incompatible material Hazardous decomposition proc SXICOLOGICAL INFORMA Information on toxicological eff | Not appli Not appli Not dete None kno | cable cable rmined rmined own None known Stable under normal condition Hazardous polymerisation will Contact with oxidisable mater Oxidisable materials None | Partition coeff. LogPoct/water Viscosity Oxidising propertie s of handling not occur ial and temperatures | Not applicable Not applicable ss Not determined > 190°C | | | |
| 10.1 10.2 10.3 10.4 10.5 10.6 | Vapour density Auto-ignition temperature Explosive properties Decomposition temperature Other information STABILTY AND REACTIVITY Reactivity Chemical stability Hazardous reactions Conditions to avoid Incompatible material Hazardous decomposition proc DXICOLOGICAL INFORMA Information on toxicological eff Acute toxicity | Not appli Not appli Not dete Not dete None kno None kno None kno None kno LDso ra | cable cable mined mined wm None known Stable under normal condition Hazardous polymerisation will Contact with oxidisable mater Oxidisable materials None | Partition coeff. LogPoct/water Viscosity Oxidising propertie Sof handling not occur | Not applicable Not applicable ss Not determined > 190°C | | | |
| 10.1 10.2 10.3 10.4 10.5 | Vapour density Auto-ignition temperature Explosive properties Decomposition temperature Other information STABILET' AND REACTIVITY Reactivity Chemical stability Hazardous reactions Conditions to avoid Incompatible material Hazardous decomposition proc SXICOLOGICAL INFORMA Information on toxicological eff | Not appli Not appli Not dete Not dete None kno None kno LD50 ra No dat | cable cable rmined rmined own None known Stable under normal condition Hazardous polymerisation will Contact with oxidisable mater Oxidisable materials None | Partition coeff. LogPoct/water Viscosity Oxidising propertie s of handling not occur ial and temperatures | Not applicable Not applicable ss Not determined > 190°C | | | |





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| | ECOLOGICAL INFORMAT | ION | | | | | |
|-------------------|---|--|---|--|-------------------|-------------|--|
| 12.1 | Toxicity | LC ₅₀ Aquatic organisms | | mg/l | No data available | | |
| 12.2 | Degradability | Not determined | Not determined I2.3 Bioaccumulative potential | | Not determined | | |
| 12.4 | Mobility in soil | Not determined I2.5 PBT/vPvB assessment | | Not applicab | Not applicable | | |
| 12.6 | Other adverse effects | None known | None known | | | | |
| | | | | | | | |
| 3 | DISPOSAL CONSIDERATI | | | | | | |
| | Advice on disposal | If possible, recycle to supplier or approved recycling company. If not (e.g. designated as waste), dispose accordance with national and local authority regulations, e.g. The Hazardous Waste (England & Wales) Regulations 2005 | | | | | |
| | | 0 | | Treat empty containers in the same way as the product. If possible was | | | |
| | Contaminated packaging | | e same v | way as the product. If possible was | h out thoroughly | and recycle | |
| | Contaminated packaging | | ie same v | way as the product. If possible was | h out thoroughly | and recycle | |
| 4 | Contaminated packaging | Treat empty containers in th | e same v | way as the product. If possible was | h out thoroughly | and recycle | |
| 4 | | Treat empty containers in th | le same v | Proper shipping name (ADR, IMDG, IATA) | h out thoroughly | | |
| 4 4. 4.3 | TRANSPORT 'NFORMATI United Nations number | Treat empty containers in th | | Proper shipping name | 1 | 6 | |
| | TRANSPORT 'NFORMATI United Nations number (ADR, IMDG, IATA) Transport class(s) | Treat empty containers in th | 14.2 | Proper shipping name (ADR, IMDG, IATA) Packing group | Not classified | | |

| 15 | REGULATORY INFORMATION | |
|----|----------------------------|--|
| | Classification & labelling | The SDS has been updated in accordance with EC Regulation No 1272/2008 (CLP/GHS) |

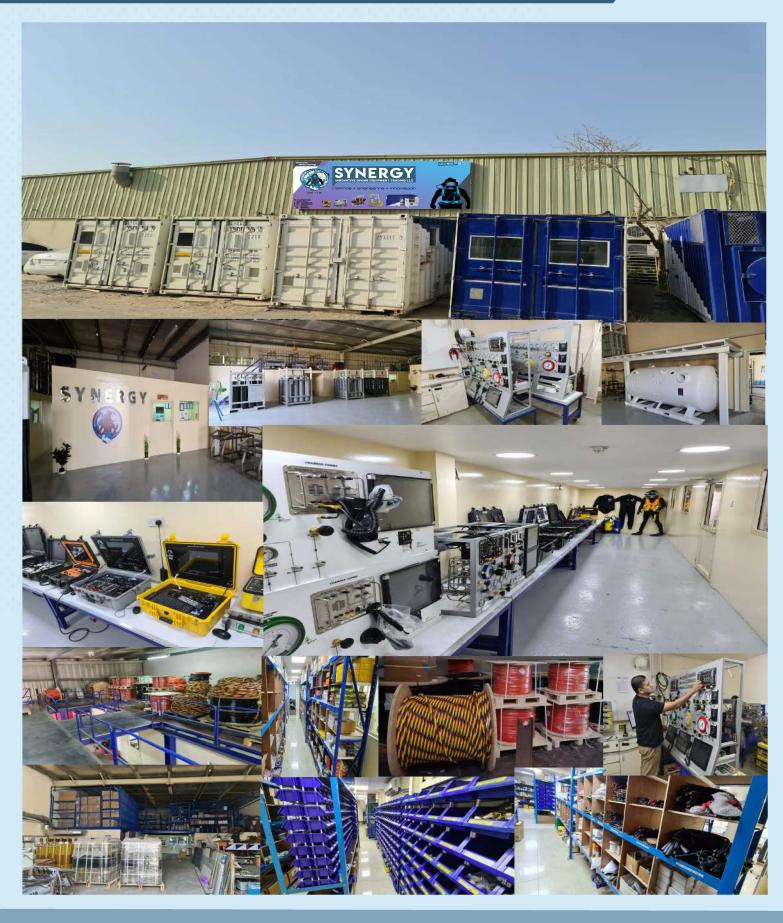
| 6 | | | | | | |
|---|--|---|---------------|---|--|--|
| | Further information | The SDS has been revised in accordance with EC Regulation 1272/2008 (CLP) Since the potassium permanganate is absorbed into the alumina and is not released, it does not contribut product classification | | | | |
| | | Comply with COSHH Regulations | | | | |
| | Hazard statements referred to in sections 2-15 | | | | | |
| | H272 | May intensify fire; oxidiser | H400 | Very toxic to aquatic life | | |
| | H302 | Harmful if swallowed | H410 | Toxic to aquatic life with long lasting effects. | | |
| | Sources of data | Other suppliers' safety data sheets | , EH40 (2011) | A TRANSFER | | |
| | Date of issue 01/06/2015 | | | NN SA | | |
| | | ased on our present state of knowled uld not be construed as guaranteeing | | escribe our products from the point of view of the safety | | |





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SYNERGY INFRASTRUCTURE



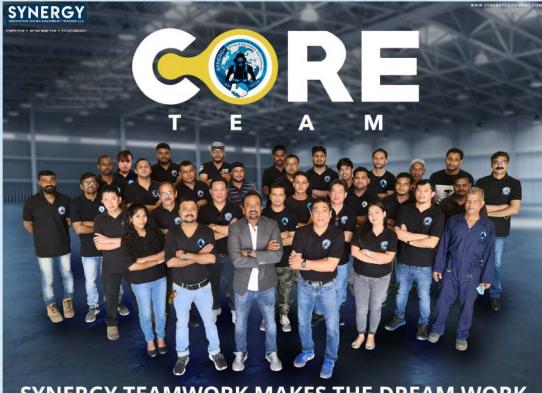


SOFNOFIL

Contact us

29th Street, Amman Road, Behind Al Huraiz Est. For Industry, Al Qusais, Industrial Area – 1, Dubai, United Arab Emirates

| 7 | Tel | : | 009714 2580533 🗖 |
|---|----------|---|---------------------------|
| ÷ | Fax | : | 009714 2580534 🗖 |
| | UAE | : | 00971505648178 🗖 |
| | UK | ; | 00447951966260 🚟 |
| | Website | : | www.synergyequipment.com |
| | Email | ; | ram@synergyequipment.com |
| | For Sale | : | info@synergyequipment.com |



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