

Kyowa Chemical Industry Co., Ltd.
SAFETY DATA SHEETS

KISUMA™ 5Q-S

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE SUPPLIER

Product Name : KISUMA™ 5Q-S
Manufacturer
Company Name : Kyowa Chemical Industry Co., Ltd.
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2. HAZARDS IDENTIFICATION

GHS Classification

Physicochemical Hazards

| | | |
|---|---|-----------------------|
| Explosives | : | Out of classification |
| Flammable gases | : | Out of classification |
| Flammable aerosol | : | Out of classification |
| Oxidizing gases | : | Out of classification |
| Gases under pressure | : | Out of classification |
| Flammable liquids | : | Out of classification |
| Flammable solids | : | Not classified |
| Self-reactive substance and mixtures | : | Out of classification |
| Pyrophoric liquids | : | Out of classification |
| Pyrophoric solids | : | Not classified |
| Self-heating substance and mixtures | : | Not classified |
| Substance and mixtures which, in contact with water, emits flammable gases | : | Not classified |
| Oxidizing liquids | : | Out of classification |
| Oxidizing solids | : | Not classified |
| Organic peroxides | : | Out of classification |
| Corrosive to metals | : | Not classified |

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Health hazards

| | | |
|---|---|-----------------------------|
| Acute toxicity (oral) | : | Not classified |
| Acute toxicity (dermal) | : | Classification not possible |
| Acute toxicity (gases) | : | Out of classification |
| Acute toxicity (vapor) | : | Classification not possible |
| Acute toxicity (dust and mists) | : | Classification not possible |
| Skin corrosion / irritation | : | Classification not possible |
| Serious eye damage / eye irritation | : | Classification not possible |
| Respiratory or skin sensitization | : | Classification not possible |
| Germ cell mutagenicity | : | Classification not possible |
| Carcinogenicity | : | Classification not possible |
| Reproductive toxicity | : | Classification not possible |
| Specific target organ systemic toxicity (single exposure) | : | Classification not possible |
| Specific target organ systemic toxicity (repeated exposure) | : | Classification not possible |
| Aspiration hazard | : | Classification not possible |

Environmental hazards

| | | |
|--|---|-----------------------------|
| Hazardous to the aquatic environment (acute) | : | Classification not possible |
| Hazardous to the aquatic environment (chronic) | : | Classification not possible |
| Hazardous to the Ozone Layer | : | Not classified |

Labeling elements

: Nothing

Other hazard

| | | |
|--------------|---|--|
| Inhalation | : | May cause symptoms of mucus irritation, cough |
| Skin contact | : | Prolonged contact may cause skin irritation |
| Eye contact | : | May irritate mucus membranes |
| Ingestion | : | No symptoms occur at low dose levels but there may be nausea, vomiting at high dose levels |

3. COMPOSITION/INFORMATION ON INGREDIENTS

| <u>Chemical name</u> | <u>Wt%</u> | <u>CAS registry #</u> |
|----------------------|-------------------------------------|-----------------------|
| Magnesium Hydroxide | 100 | 1309-42-8 |
| <u>Synonym(s)</u> | Milk of magnesia; Magnesium hydrate | |
| <u>EC No.</u> | 2151703 | |
| <u>TSCA</u> | Registered | |

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4. FIRST AID MEASURES

- Inhalation : Remove the exposed individual into fresh air and make him blow his nose and gargle.
- Eye contact : First rinse with plenty of water for several minutes (Remove contact lenses if easily possible), then take a doctor.
- Skin contact : Remove contaminated clothes, rinse skin with plenty of water or shower.
- Ingestion : Rinse mouth. In case of large amount, drink large quantity of water and induce vomiting. Refer for medical attention.
- Note to physician : Treat symptomatically.
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5. FIRE FIGHTING MEASURES

- Extinguishing media : This product is non- flammable.
- Protection for firefighters : Firefighters should wear protective equipment.
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6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Wear proper equipment and avoid contact with skin and inhalation of dust.
- Environmental precautions : Do not discharge soil, subsoil, drain, surface water and groundwater.
- Removal : Vacuum or sweep up in a waste container. Wash away residue with plenty of water.
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7. HANDLING AND STORAGE

- Handling : It is better to wear proper protective equipment not to contact with skin or inhale the dust.
- Storage : This material should be stored in a dry place and the bag must be tightly closed after use because of its hygroscopicity.
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| | | |
|-------------------------------|---|--|
| Engineering controls | : | Prevent dispersion of dust. |
| Personal protective equipment | | |
| Eye / Face Protection | : | Safety Glasses |
| Skin Protection | : | Working clothes and rubber gloves (Nothing of particular protection) |
| Respiratory Protection | : | Dust mask |
| Exposure Guidelines | : | Recommendation of Occupational Exposure Limits (OELs) (2007) Respirable dust - 2 mg/m ³ , Total - 8 mg/m ³ The Japan Society for Occupational Health(JSOH) |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|--|---|---|
| Appearance | : | White powder |
| Odour | : | No information |
| Odour threshold | : | No information |
| pH | : | No information |
| Melting point | : | No information |
| Initial boiling point | : | 3600°C(MgO) |
| Flash point | : | No information |
| Evaporation rate | : | No information |
| Flammability | : | No information |
| Upper/lower flammability or explosive limits | : | No information |
| Vapour pressure | : | No information |
| Vapour density | : | No information |
| Relative density | : | 2.4 |
| Solubility | : | Slightly soluble in water. Soluble in mineral acid. |
| Partition coefficient: n-octanol/water | : | No information |
| Auto-ignition temperature | : | No information |
| Decomposition temperature | : | 350°C |
| Viscosity | : | No information |

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10. STABILITY AND REACTIVITY

| | | |
|--------------------|---|--------------------------------------|
| Chemical stability | : | Stable under normal conditions |
| Reactivity | : | May react with oxidizing substances. |

11. TOXICOLOGICAL INFORMATION

| | | |
|-----------------------------------|---|--|
| Acute toxicity | : | Magnesium hydroxide LD ₅₀ —over 8500mg/kg oral rat ⁽¹⁾ LD ₅₀ —over 8500mg/kg oral mouse ⁽¹⁾ LD ₅₀ —about 2780mg/kg intraperitoneal rat ⁽¹⁾ LD ₅₀ —about 815mg/kg intraperitoneal mouse ⁽¹⁾ TDLo—2747mg/kg human infant ⁽²⁾ |
| Skin corrosion/irritation | : | Not available |
| Eye irritation | : | If contacted with eyes, eyes are irritated |
| Respiratory or skin sensitization | : | Not available |
| Mutagenicity | : | Not available |
| Carcinogenicity | : | Not available |
| Aspiration hazard | : | Not available |

Magnesium hydroxide is affirmed as GRAS (generally recognized as safe) in FDA (U.S.A.).

(1) NIIRDN Drugs in Japan(Ethical Drugs), published by YAKUGYO JIHO CO., LTD(page1131,1990)

(2) JTCTDW Journal of Toxicology, Clinical Toxicology, by Marcel Dekker, USA(Vol.29, page215,1991)

12. ECOLOGICAL INFORMATION

| | | |
|-------------------------------|---|---------------|
| Toxicity | : | Not available |
| Persistence and degradability | : | Not available |
| Bioaccumulative potential | : | Not available |
| Mobility in soil | : | Not available |
| Other adverse effects | : | Not available |

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13. DISPOSAL CONSIDERATIONS

Disposal methods : In accordance with the laws of your country.

14. TRANSPORT INFORMATION

NA : Not applicable
UN No. : Not applicable
ADR/RID : Not applicable
IMO-IMDG code : Not applicable
Hazard Label(s) : Unnecessary

15. REGULATORY INFORMATION

Symbol(s) : Nothing
R Phrase (s) : Nothing
S Phrase (s) : Nothing
Please refer to any other national measures that may be relevant.

16. OTHER INFORMATION

No specific notes.

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