

Kyowa Chemical Industry Co., Ltd.
SAFETY DATA SHEETS

KYOWAAD™ 500 (Grade: PL)

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE SUPPLIER

Product Name : KYOWAAD™ 500 (Grade: PL)

Manufacturer

Company Name : Kyowa Chemical Industry Co., Ltd.

Address : 305 Yashimanishi-machi, Takamatsu, Kagawa, 761-0113, Japan

Telephone Number : +81-(0) 87-841-9156

Emergency telephone number

Kyowa Chemical Industry Co., Ltd.
Telephone No. +81-(0) 87-844-2154 (Quality Assurance Dept.)
Facsimile No. +81-(0) 87-844-2170

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 Aluminum Hydroxide Carbonate Hydrate | 100 | 11097-59-9 |
| <u>Synonym(s)</u> | Hydrotalcite | |
| <u>EC No.</u> | 2343193 | |
| <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. |

5. FIRE FIGHTING MEASURES

| | | |
|----------------------|---|---------------|
| Flammable Properties | : | Non-flammable |
|----------------------|---|---------------|

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. |

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 closed after use because of its hygroscopicity. This material must be stored to avoid contact with oxidizers (such as perchlorates, peroxides, permanganates, chlorates and nitrates) and chlorine trifluoride since violent reactions occur. |

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| | | |
|-------------------------------|---|---|
| Engineering controls | : | No specific controls are needed. |
| Personal protective equipment | | |
| Eye / Face Protection | : | Safety Glasses |
| Skin Protection | : | Working clothes (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 fine powder |
| Odour | : | No information |
| Odour threshold | : | No information |
| pH | : | No information |
| Melting point | : | No information |
| Initial boiling point | : | No information |
| 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 | : | 2.1 |
| Solubility | : | Insoluble in water. Soluble in mineral acid. |
| Partition coefficient: n-octanol/water | : | No information |
| Auto-ignition temperature | : | No information |
| Decomposition temperature | : | No information |
| Viscosity | : | No information |

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10. STABILITY AND REACTIVITY

| | | |
|----------------------------------|---|--------------------------------|
| Chemical stability | : | Stable under normal conditions |
| Conditions to avoid | : | Wet or high temperature |
| Hazardous decomposition products | : | Nothing |
| Hazardous reactions | : | Will not occur |

11. TOXICOLOGICAL INFORMATION

Acute toxicity (oral) : LD₅₀= over 10,000 mg/kg by oral and hypodermic injection (mice) †
over 8,200 mg/kg by intraperitoneal injection (mice)

(† Hydrotalcite; DEPARTMENT OF PHARMACOLOGY TOKYO MEDICAL COLLEGE 25,695(1967))

| | | |
|-----------------------------------|---|---|
| Skin corrosion/irritation | : | Prolonged contact may cause skin irritation |
| Eye irritation | : | If contacted with eyes, eyes are irritated |
| Respiratory or skin sensitization | : | Not available |
| Mutagenicity | : | Negative |
| STOST-single exposure | : | Not available |
| STOST-repeated exposure | : | Not available |
| Aspiration hazard | : | Not available |

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 |

13. DISPOSAL CONSIDERATIONS

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

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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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