MATERIAL SAFETY DATA SHEET

CHALCO ALUMINA TRIHYDRATE

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

1.1 Product identification : CHALCO ALUMINA TRIHYDRATE

1.2 Recommended use : Flame retardant filler

1.3 Supplier name : SEA Olympus Marketing Inc.

1.4 Supplier address : A.C. Cortez Ave., Mandaue City, Cebu Philippines 6014

SECTION 2. HAZARDS IDENTIFICATION

2.1 Hazard classification of substance or mixture (GHS)

Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2A

Specific target organ toxicity, single exposure; respiratory tract irritation Category 3

2.2 Pictograms

2.3 Signal word

Warning

2.4 Hazard description

H315: Causes skin irritation

H319: Causes serious eye irritation

H335: May cause respiratory irritation

2.5 Precautionary description

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P264: Wash thoroughly after handling

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance name	Concentration (%)	CAS no.
Aluminum hydroxide	99.822	21645-51-2
Ferric oxide	0.008	1309-37-1
Sodium oxide	0.16	1313-59-3
Silicon dioxide	0.01	7631-86-9

SECTION 4. FIRST AID MEASURES

General advice: Immediate medical attention is required. Show this safely data sheet (MSDS) to the doctor in attendance.

4.1 Following eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a physician if feeling uncomfortable.

4.2 Following skin contact

Wash with soap and water. Consult a physician if feeling uncomfortable.

4.3 Following inhalation

Move victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give cardiopulmonary resuscitation and consult a physician immediately.

4.4 Following ingestion

If it is ingested, rinse the mouth with water. Seek medical attention immediately.

SECTION 5. FIREFIGHTING MEASURES

5.1 Special hazards arising from the substance or mixture

Not considered to be fire hazard. Not easily ignited by fire.

5.2 Extinguishing media

Dry powder, chemical foam, carbon dioxide, water mist

5.3 Advice for firefighters

As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH- approved or equivalent) and full protective gear.

Extinguish fire in a safe distance with enough protection.

Prevent fire extinguishing water from contaminating surface water or the groundwater system.

5.4 Hazardous **combustion products**

No data available.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contacting with eye and skin.

Ensure adequate ventilation. Clear all fire points.

Evacuate personnel to safe areas. Keep people away from upwind of spill/leak.

Wear appropriate protective measures (See Section 8).

6.2 Environmental precaution

Do not empty into drains. If the product contaminated lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations.

6.3 Cleaning method

Remove by vacuum cleaner. Avoid dust. Disposal of discarded waste/pollutants, refer to Section 13.

SECTION 7. SAFE HANDLING AND STORAGE

7.1 Handling notes

Keep away from fire and heat.

Avoid producing dust.

Keep indoor ventilation or local exhaust device.

When handling, load and unload with care to prevent damage to packaging and containers.

7.2 Storage notes

Keep away from fire and heat.

Store in a well-ventilated place. Keep cool.

The storage area should be equipped with suitable materials to contain the leakage.

Store in compatible containers.

Keep storage containers sealed.

Do not store with incompatible materials (see Section 10.2).

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Occupational exposure limit

No information found.

8.2 Engineering control

Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapor below the OEL, suitable protection must be worn.

8.3 Respiratory protection

Wear filter mask.

If exposure limits exceeded or if irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges.

8.4 Eye protection

Wear protective goggle in working time. (Comply with the European Union EN 166 or the US NIOSH standard.) If contacting with eyes, flush with plenty of water. If you have discomfort, seek medical advice.

8.5 Hand protection

Wear protective gloves (such as butyl rubber), passing the tests according to EN 347 (EU), US F739 or AS/NZS 2161.1 standard. Wash with plenty of water if gloves puncture or skin exposure.

8.6 Sanitary measure

Forbid smoking, eating and drinking in working places. Wash hands after handling products.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and color	White powder
Odour	Odorless
pH	No data
Flammability	Not flammable
Flash point (, closed cup)	No data
Boiling point ( )	No data
Melting point ( )	300
Density (g/cm^3)	No data
Relative steam density (air=1)	No data
Vapor pressure (MPa)	No data
Octanol/water partition coefficient	No data
Viscosity (mPa/s)	No data
Evaporation rate (kg/s)	No data
UEL % (v/v)	No data
LEL % (v/v)	No data
Auto/ignition temperature ( )	No data
Decomposition temperature ( )	No data
Solubility	Insoluble in water

SECTION 10. STABILITY AND REACTIVITY

10.1 Stability

Stable under recommended storage and handling conditions (see Section 7)

10.2 Material for avoiding

Strong oxide, acid and alkali.

10.3 Contact conditions for avoiding

High temperature

10.4 Hazardous decomposition products

No data available.

SECTION 11. TOXICOLOGICAL DATA

11.1 Acute toxicity

No information found.

11.2 Skin corrosion/irritation

Causes skin irritation.

11.3 Serious eye damage/irritation

Causes serious eye irritation.

11.4 Respiratory or skin sensitization

May cause respiratory irritation.

11.5 Germ cell mutagenicity

No information found.

11.6 Carcinogenicity

No information found.

11.7 Reproductive toxicity

No information found.

11.8 STOT-single exposure

No information found.

11.9 STOT-repeated exposure

No information found.

11.10 Aspiration hazard

No information found.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

According to the environmental protection laws, this product can't be poured into sewers or drainage ditches, can't be discarded in those places which would affect soil and underground water.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Other adverse effects

No data available.

SECTION 13. DISPOSAL CONSIDERATION

13.1 Handling method for waste

Handling waste according to the local regulations. Contact-specific waste disposal company or companies recommended by local laws.

13.2 Handling method for uncleaned packaging

According to official regulations.

SECTION 14. TRANSPORT INFORMATION

IMDG,ICAO/IATA,ARD/RID 14.1 UN NO: Not classified.

IMDG,ICAO/IATA,ARD/RID 14.2 Class: Not classified.

IMDG,ICAO/IATA,ARD/RID 14.3 Packaging group: Not classified.

IMDG,ICAO/IATA,ARD/RID 14.4 Technical name: Not classified.

IMDG,ICAO/IATA,ARD/RID 14.5 Label: Not classified.

14.6 Attention notes: Gentle with, prevent collision drag and dump. Prohibition with antioxidant and chemical mixed stowage, transit should prevent sun, rain and high temperature.

SECTION 15. REGULATORY INFORMATION

China Regulatory Chemical Substances List

Substance name	1	2	3	4	5	6	7	8
Aluminum hydroxide CAS: 21645-51-2	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
Ferric oxide CAS: 1309-37-1	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
Sodium oxide CAS: 1313-59-3	Listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
Silicon dioxide CAS: 7631-86-9	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

1 Catalog of Hazardous Chemicals (2015 Edition)

2 Catalog of Priority Hazardous Chemicals for Environment Management

3 List of Toxic Chemicals to be Imported/Exported in China

4 Catalog of Stupefacient and Psychotropic Substances (2013 Edition)

5 Catalog of Hazardous Chemicals for Priority Management (First and Second batches)

6 List of Ozone Depletion Chemicals Controlled to be Imported/Exported in China (First to Sixth batches)

7 Dangerous Chemicals Directory Used to Manufacture Exploder (2017 Edition)

8 Catalog of Highly Toxic Chemicals

SECTION 16. OTHER INFORMATION

The information in this Material Safety Data Sheet was obtained from sources which we believe to be reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

S.E.A. OLYMPUS Marketing, Inc.
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PolyKlear FIBERGLASS + RESIN

TECHNICAL DATA SHEET

CHALCO ALUMINA TRIHYDRATE

PRODUCT DESCRIPTION

CHALCO ALUMINA TRIHYDRATE H-WF-25 MICRONS is a widely-used filler in solid surface, BMC/SMC, glass fiber-reinforced plastics (FRPs), and other composite materials. It is a high-whiteness powder with low absorption and stable performance at normal atmospheric temperature. It is an excellent flame-retardant with a self-extinguishing property, and generates no toxic or corrosive gases during its thermal decomposition.

PROPERTIES

Chemical composition, %

$Al(OH)_3$	99.6
SiO_2	0.1
Fe_2O_3	0.02
Na_2O	0.25
Na_2Os	0.03
DOP, ml/100 g	30
Whiteness, %	95
Particle size	
D50, m	24 6
+325 mesh, %	- - -
Moisture, %	0.2

PACKAGING

CHALCO ALUMINA TRIHYDRATE H-WF-25 MICRONS comes in 1-kg and 25-kg bags.

SEA Olympus Marketing Inc. reserves the right to change the information given herein without prior notice. We believe this information to be reliable, but do not guarantee its applicability to the user's process or assume liability for occurrence arising out of its use. The user, by accepting products described herein agrees to be responsible for thoroughly testing any application before committing to production.

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