

Material Safety Data Sheet

Issue Date: 11/7/2003

MSDS Number: ALP01

Product Name: Alpolic

Revision: (04) 12/18/2012

Section 1 - Chemical Product and Company Identification

Product Name: Alpolic

Chemical Formula NA

CAS Number: NA (mixture)

General Use: Composite Building material

Other Designations NA

Company Name: Mitsubishi Plastics Composites America Distributor: Same as Manufacturer
Street Address: 401 Volvo Parkway Street Address: Same as Manufacturer
Town: Chesapeake Town: Same as Manufacturer
State: VA State: Same as Manufacturer
Zip Code: 23320 Zip Code: Same as Manufacturer
Emergency Contacts: Chemtrec 1-800-424-9300 Other Contacts: 757-382-5750

| | |
|------------|--------------|
| Health | 1 |
| Fire | 0 |
| Reactivity | 0 |
| PPE | (See Sec. 8) |

<<<>> EMERGENCY OVERVIEW <<<>>

Metal machining or grinding operations may produce fine particulate or dust. Heating, melting, welding, or brazing, may produce metal fumes and particulates. Inhalation of excessive fume or dust concentrations may result in respiratory tract irritation and/or metal fume fever.

Section 2 - Composition and Information on Ingredients

| Ingredient | Aluminum | CAS No. Proprietary | | | % in Mixture | 20 |
|------------|----------|---------------------|----------|-------|--------------|----|
| | | OSHA | ACGIH | NIOSH | | |
| TWA | NE | 10 mg/m3 | 10 mg/m3 | | mg/cu.meter | |
| STEL | NE | NE | NE | | mg/cu.meter | |
| IDLH | NA | NA | NE | | mg/cu.meter | |

| Ingredient | Fluoropolymer Coating | CAS No. Proprietary | | | % in Mixture | <1 |
|------------|-----------------------|---------------------|-------|-------|--------------|----|
| | | OSHA | ACGIH | NIOSH | | |
| TWA | NE | NE | NE | | mg/cu.meter | |
| STEL | NE | NE | NE | | mg/cu.meter | |
| IDLH | NA | NA | NE | | mg/cu.meter | |

| Ingredient | Polyethylene | CAS No. 9002-88-4 | | | % in Mixture | 50-80 |
|------------|--------------|-------------------|-------|-------|--------------|-------|
| | | OSHA | ACGIH | NIOSH | | |
| TWA | 15* and 5** | 10* | NE | | mg/cu.meter | |
| STEL | NE | NE | NE | | mg/cu.meter | |
| IDLH | NA | NA | NE | | mg/cu.meter | |

NA

Section 3 - Hazards Identification

Primary Entry Routes:

Absorption

Target Organs:

NA

Inhalation Effects:

Slight irritation of respiratory tract.

Eye Effects:

Dust may cause irritation by mechanical abrasion.

Skin Effects:

Slight irritation possible to sensitive individuals.

Ingestion Effects:

ND

Carcinogenicity:

NA

Medical Conditions Aggravated by Long-term Exposure:

Accumulation of dust in the respiratory system may cause moderate congestion.

Chronic Effects and/or Recommendations:

If use generates airborne particles, treat as a NUISANCE PARTICULATE (ACGIH TLV = 10 mg/cu. meter).

Section 4 - First Aid Measures**Inhalation:**

Protect yourself with appropriate PPE, remove the person to fresh air. Decontaminate and begin rescue breathing if breathing has stopped and CPR if heart action has stopped. Seek prompt medical attention.

Eye:

DO NOT allow victim to rub or keep eyes tightly shut. Gently lift eyelids and immediately flush eyes with large amounts of water. Remove any contact lenses. Continue to flush for at least 30 minutes, occasionally lifting the upper and lower lids. Seek prompt medical attention.

Skin:

Quickly remove contaminated clothing. Immediately wash area with large amounts of water. Seek prompt medical attention for any reddened skin other than from washing.

Ingestion:

Never give anything by mouth to an unconscious or convulsing person. Contact a Poison Control Center (PCC). Unless the PCC advises otherwise, have the conscious and alert person drink 1 to 2 glasses of water to dilute. Induce vomiting only after recent ingestions due to the possibility of seizures. Seek prompt medical attention.

Additional First Aid Information:

NA

Section 5 - Fire Fighting Measures

| | | | |
|-------------------------------------|-------------|-----------------------------------|--|
| Flash Point: | | Flash Point Method: | |
| NA | | NA | |
| Flammability Classification: | | Auto Ignition Temperature: | |
| 0 Not Flammable (HMIS, NFPA) | | ND | |
| LEL: | UEL: | Burning Rate: | |
| NA | NA | NA | |

Extinguishing Media:

Water spray, dry chemical, foam, carbon dioxide, or halon-type extinguishers.

Unusual Fire / Explosion Hazards:

May form flammable dust-air mixture.

Hazardous Combustion Products:

Carbon monoxide, carbon dioxide, nitrogen oxide, and smoke. Under certain conditions some aliphatic aldehydes and carboxylic acids may form.

Fire-Fighting Instructions:

Do not release runoff from fire control methods to sewers or waterways.

Fire-Fighting Equipment:

Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode.

Section 6 - Accidental Release Measures

Containment Method:

No special requirements.

Reporting Requirements:

NA

Section 7 - Handling and Storage

Handling Precautions:

NA

Storage Requirements:

NA

Regulatory Requirements:

Avoid contact with sharp edges.

Section 8 - Exposure Controls and Personal Protection

Ventilation

The best protection is to enclose operations and/or provide local exhaust ventilation at the site of chemical release in order to maintain airborne concentrations of the product below OSHA PELs (See Section 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Respiratory Protection

IMPROPER USE OF RESPIRATORS IS DANGEROUS. Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134 and 1910.137) and, if necessary, wear a NIOSH approved respirator. Select respirator based on its suitability to provide adequate worker protection for given work conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA. WARNING! Air purifying respirators do not protect worker in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit testing, periodic environmental monitoring, maintenance, inspection, cleaning and convenient, sanitary storage areas.

Protective Clothing and Equipment

Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear splash-proof chemical goggles and face shield when working with liquid, unless full facepiece respiratory protection is worn. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Safety Stations

Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment

Separate contaminated work clothes from street clothes. Launder before reuse. Remove material from your shoes

and clean personal protective equipment. Never take home contaminated clothing.

Comments

Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the restroom, or apply cosmetics.

Additional Information

NA

Section 9 - Physical and Chemical Properties

| | | | |
|-----------------------------|--|--|--|
| Boiling Point: NA | Freezing or Melting Point: NA | Odor Threshold: ND | Physical State: Solid |
| Viscosity: NA | Refractive Index: NA | Vapor Density (Air = 1): Heavier than air. | Appearance and Odor: Solid Aluminum, polyethylene composite material, various colors |
| % Volatiles: NA | Surface Tension: NA | Vapor Pressures: NA | Water Solubility: Negligible |
| Density: NA | Evaporation Rate: NA | Formula Weight: NA | Other Solubilities: NA |
| pH: NA | Specific Gravity where Water = 1 at 4 deg C NA | | Additional Comments: NA |

Section 10 - Stability and Reactivity

| | | |
|---|------------------------------|--|
| Stability: Stable under conditions of normal use. | Polymerization: NA | Hazardous Decomposition Products: NA |
| Chemical Incompatibilities: NA | | |
| Conditions to Avoid: NA | | |
| Other Comments: NA | | |

Section 11 - Toxicological Information

Checked box indicates that related health effects criteria applies to the overall mixture.

- Eye Effects Acute Oral Effects Acute Inhalation Effects Mutagenicity
Skin Effects Chronic Effects Carcinogenicity Teratogenicity

EXPLANATION of HEALTH EFFECTS:
NA

EXPLANATION of TOXICOLOGICAL CRITERIA:

Chemical Component: Aluminum

REPRODUCTIVE EFFECTS DATA: 1260 mg/kg oral-mouse TDLo multigenerations

INHALATION ACUTE EXPOSURE: The only reported inhalation effects are for the dust, powder, or fume forms.

SKIN CONTACT ACUTE EXPOSURE: A sliver of aluminum penetrating the skin may form aluminum salts which induce local irritation and possibly secondary infections. Contact with rough or sharp edges may cause cuts or abrasions.

EYE CONTACT ACUTE EXPOSURE: Small metal particles have been observed in the eyes of humans on or near the retinal and are usually nonirritating and well tolerated. The particles gradually changed into a white powder and disappear in 2 or 3 years leaving only a characteristic local necrotic "imprint". Larger particles and splinters may scratch or cut the corneal and lids.

INGESTION ACUTE EXPOSURE: The actual effects may be determined by the form of the aluminum that is ingested. Generally it has a very low acute systemic toxicity due to its poor absorption from the gastrointestinal tract. Massive doses may cause gastrointestinal irritation and may be toxic.

INGESTION CHRONIC EXPOSURE: Large amounts may interfere with intestinal absorption of phosphates leading to ricketts. Certain disease states influence the concentration of aluminum in organs, for example, Alzheimer's disease in which excessive levels may have been found in the brain.

ECOTOXICITY DATA:

FISH TOXICITY: 293 ug/L 7 hour(s) LETH (Mortality) Golden trout (*Oncorhynchus aguabonita*)

INVERTEBRATE DATA: 2600 ug/L 24 hour(s) LC50 (Mortality) Water flea (*Daphnia pulex*)

PHYTOTOXICITY: 2500 ug/L 32 day(s) EC50 (Biomass) Water-milfoil (*Myriophyllum spicatum*)

FATE AND TRANSPORT:

BIOCONCENTRATION: 36 ug/L 56 hour(s) BCF (Residue) Brook trout (*Salvelinus fontinalis*) 268 ug/L

OSHA permissible exposure limit (PEL) has been set up for this substance. The PEL is an 8 hour TWA. Limits for air containment: Total dust: 15 mg/m³; Respirable fraction: 5 mg/m³.

Chemical Component: Fluoropolymer Coating

Data Not Available

Chemical Component: Polyethylene

>3 gm/kg oral-rat LD50; 5 gm/kg oral-mouse LDLo

Section 12 - Ecological Information

Checked box indicates that information regarding the criteria applies to the overall mixture.

Ecotoxicity Environmental Fate Environmental Degradation Soil Absorption and Mobility

EXPLANATION of APPLICABLE ECOLOGICAL CRITERIA:

NA

Section 13 - Disposal Considerations

Disposal:

Contact your local supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state and local regulations.

Disposal Regulatory Requirements:

NA

Container Cleaning and Disposal:

NA

Section 14 - Transport Information

| DOT Transportation Data (49CFR 172.101) | | |
|---|----------------------------------|---|
| Shipping Name: NA | Label: NA | Passenger Air and Railcar: NA |
| Shipping Symbols: NA | Special Provisions: NA | Cargo Aircraft: NA |
| Hazard Class: NA | Exceptions: NA | Oceangoing Vessel Stowage: NA |
| ID Number: NA | Non-bulk Packaging: NA | Other: NA |
| Packing Group: NA | Bulk Packaging: NA | |

| EXPLANATION of APPLICATION TRANSPORTATION CRITERIA: |
|---|
| NA |

Section 15 - Regulatory Information

Checked box(es) indicate that the chemical is subject to the associated regulatory requirements and/or appears on the associated chemical inventory list

| Chemical Component: | Aluminum | CAS # | Proprietary | |
|-----------------------|--------------------------|---------------------------|--------------------------|---|
| 40 CFR 261.33 | <input type="checkbox"/> | CAA 40 CFR 112 | <input type="checkbox"/> | TSCA inventory (US) <input checked="" type="checkbox"/> |
| 40 CFR 261 classified | <input type="checkbox"/> | SARA 40 CFR 311 and 312 | <input type="checkbox"/> | AICS inventory (Australia) <input checked="" type="checkbox"/> |
| RCRA Section 3001 | <input type="checkbox"/> | SARA 40 CFR 372.65 | <input type="checkbox"/> | EINECS inventory (Europe) <input checked="" type="checkbox"/> |
| CERCLA RQ established | <input type="checkbox"/> | SARA 40 CFR 355 | <input type="checkbox"/> | DSL inventory (Canada) <input checked="" type="checkbox"/> |
| 40 CFR 302.4 | <input type="checkbox"/> | OSHA 1910 1000 Z-1 tables | <input type="checkbox"/> | ECL inventory (Korea) <input checked="" type="checkbox"/> |
| CWA 40 CFR 311(b)(4) | <input type="checkbox"/> | OSHA 1910 subpart Z | <input type="checkbox"/> | ENCS inventory (Japan) <input type="checkbox"/> |
| CWA 40 CFR 307(a) | <input type="checkbox"/> | | | PICCS inventory (Phillipines) <input checked="" type="checkbox"/> |
| | | | | CHINA inventory <input type="checkbox"/> |

| Chemical Component: | Fluoropolymer Coating | CAS # | Proprietary | |
|-----------------------|--------------------------|---------------------------|--------------------------|--|
| 40 CFR 261.33 | <input type="checkbox"/> | CAA 40 CFR 112 | <input type="checkbox"/> | TSCA inventory (US) <input type="checkbox"/> |
| 40 CFR 261 classified | <input type="checkbox"/> | SARA 40 CFR 311 and 312 | <input type="checkbox"/> | AICS inventory (Australia) <input type="checkbox"/> |
| RCRA Section 3001 | <input type="checkbox"/> | SARA 40 CFR 372.65 | <input type="checkbox"/> | EINECS inventory (Europe) <input type="checkbox"/> |
| CERCLA RQ established | <input type="checkbox"/> | SARA 40 CFR 355 | <input type="checkbox"/> | DSL inventory (Canada) <input type="checkbox"/> |
| 40 CFR 302.4 | <input type="checkbox"/> | OSHA 1910 1000 Z-1 tables | <input type="checkbox"/> | ECL inventory (Korea) <input type="checkbox"/> |
| CWA 40 CFR 311(b)(4) | <input type="checkbox"/> | OSHA 1910 subpart Z | <input type="checkbox"/> | ENCS inventory (Japan) <input type="checkbox"/> |
| CWA 40 CFR 307(a) | <input type="checkbox"/> | | | PICCS inventory (Phillipines) <input type="checkbox"/> |
| | | | | CHINA inventory <input type="checkbox"/> |

| Chemical Component: | Polyethylene | CAS # | 9002-88-4 | |
|-----------------------|--------------------------|---------------------------|--------------------------|--|
| 40 CFR 261.33 | <input type="checkbox"/> | CAA 40 CFR 112 | <input type="checkbox"/> | TSCA inventory (US) <input checked="" type="checkbox"/> |
| 40 CFR 261 classified | <input type="checkbox"/> | SARA 40 CFR 311 and 312 | <input type="checkbox"/> | AICS inventory (Australia) <input checked="" type="checkbox"/> |
| RCRA Section 3001 | <input type="checkbox"/> | SARA 40 CFR 372.65 | <input type="checkbox"/> | EINECS inventory (Europe) <input type="checkbox"/> |
| CERCLA RQ established | <input type="checkbox"/> | SARA 40 CFR 355 | <input type="checkbox"/> | DSL inventory (Canada) <input checked="" type="checkbox"/> |
| 40 CFR 302.4 | <input type="checkbox"/> | OSHA 1910 1000 Z-1 tables | <input type="checkbox"/> | ECL inventory (Korea) <input checked="" type="checkbox"/> |
| CWA 40 CFR 311(b)(4) | <input type="checkbox"/> | OSHA 1910 subpart Z | <input type="checkbox"/> | ENCS inventory (Japan) <input checked="" type="checkbox"/> |
| CWA 40 CFR 307(a) | <input type="checkbox"/> | | | PICCS inventory (Phillipines) <input type="checkbox"/> |
| | | | | CHINA inventory <input type="checkbox"/> |

Section 16 - Other Information

Abbreviations: ACGIH - American Conference of Governmental Industrial Hygienists
IDLH - Immediately Dangerous to Life and Health
NA - Not Applicable to the criteria OR Not Available
ND- Not Determined OR Not Known
NE - None established
OSHA - Occupational Safety and Health Administration
PEL - Permissible Exposure Limit
RCRA - Resource Conservation Recovery Act
STEL - Short Term Exposure Limit
TLV - Threshold Limit Value
TSCA - Toxic Substances Control Act
TWA - Time Weighted Average

Disclaimer: The information presented in this Material Safety Data Sheet is based on data believed to be accurate as of the date this Material Safety Data Sheet was prepared. The information above is provided on the condition that parties receiving the product make their own determination as to the suitability of the product for their particular purpose and assume the risk of use of the product. NO WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED ABOVE, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. Mitsubishi has no responsibility or liability for any damage or injury resulting from abnormal use or from any failure to adhere to recommended procedures. Mitsubishi neither grants, nor shall the party receiving the product imply any authorization to practice any patented invention without a license.

Additional Comments: NA

Revision Notes: ACB

<<<<< **END OF MSDS**>>>>>