CORNING

Material Safety Data Sheet

Material Name: Glass Code 2320 **ID: C-636**

* * * Section 1 - Chemical Product and Company Identification * * *

Product Description

This product is classified as an article under 29 CFR 1910.1200.

Glass Code: 2320
Chemical Name: Sodium Alumino Silicate
Product Use: Protective Cover for Displays

Manufacturer Information

Corning Incorporated
HP-CB-08
Corning, NY 14831

Phone: (607) 974-2475

Emergency # 24 Hr CHEMTREC U.S. (800) 424-9300
24 Hr CHEMTREC International (703) 527-3887

General Comments

NOTE: CHEMTREC telephone number is to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals.

* * * Section 2 - Hazards Identification * * *

Emergency Overview This article is a non-combustible, non-reactive solid material. It is supplied in the form of sheet glass. Dust or powder may be irritating to the eyes, skin and respiratory system. Rubbing may cause abrasion of cornea. Mechanical rubbing may increase skin irritation. At very high exposure levels the dust may have an effect on the lungs.

Potential Health Effects: Eyes

Dust or powder may irritate eye tissue. Rubbing may cause abrasion of cornea.

Potential Health Effects: Skin

Dust or powder may irritate the skin. Rubbing may cause abrasion of skin. No components in this product are known to be absorbed through the skin.

Potential Health Effects: Ingestion

May cause temporary irritation of the throat, stomach, and gastrointestinal tract.

Potential Health Effects: Inhalation

Dusts of this product may cause irritation of the nose, throat, and respiratory tract. When inhaled in very large amounts, damage to the lung can occur.

HMIS Ratings: Health: 1* **Fire:** 0 **Physical Hazard:** 0 **Pers. Prot.:** gloves/glasses
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

* * * Section 3 - Composition / Information on Ingredients * * *

CAS#	Component	Percent
65997-17-3	Glass, oxide, chemicals	100
Not Available	Aluminum Oxides (**See NOTE Below)	15-20

Component Related Regulatory Information

This product may be regulated and have exposure limits as identified in Section 8.

Component Information/Information on Non-Hazardous Components

Glass is a solid material produced by combining various raw materials (e.g. oxides, etc.), melting these components together, and cooling to a non-crystalline solid having its own unique properties.

Processing of this article may produce dusts or fumes which are considered hazardous under U.S. 29 CFR 1910.1200 (Hazard Communication) and the Canadian Controlled Product Regulations.

****NOTE:** This component is not a separate component and does not exist in the form of a free oxide, but is included in the glass matrix.

* * * Section 4 - First Aid Measures * * *

First Aid: Eyes

Eye injuries from glass particles should be treated by a physician immediately.

First Aid: Skin

Cuts or abrasions should be treated promptly with thorough cleansing of the affected area.

First Aid: Ingestion

The material is a glass article, and ingestion is unlikely.

First Aid: Inhalation

If dust is causing irritation, move person to non-contaminated air. Call a physician if symptoms persist.

* * * Section 5 - Fire Fighting Measures * * *

General Fire Hazards

See Section 9 for Flammability Properties.

This material will not burn.

Hazardous Combustion Products

Material will begin softening at about 900º C, will proceed to a liquid and will form irritating and toxic gaseous metallic oxides at extremely high temperatures.

Extinguishing Media

Use methods for the surrounding fire.

Fire Fighting Equipment/Instructions

Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

NFPA Ratings: Health: 1 **Fire:** 0 **Reactivity:** 0 **Other:** 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

* * * Section 6 - Accidental Release Measures * * *

Containment Procedures

Avoid creating dusts.

Clean-Up Procedures

If glass is crushed and airborne dust can be generated then use a dust suppressant or HEPA vacuum. Place in a closed container.

Evacuation Procedures

None necessary.

Special Procedures

Regulations vary. Consult local authorities before disposal. Glass products may be recycled.

* * * Section 7 - Handling and Storage * * *

Handling Procedures

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not breathe dust. Avoid contact of dusts with skin and eyes. Wash hands after handling.

Storage Procedures

Keep container closed when not in use. Store in a dry area. Store locked up.

* * * Section 8 - Exposure Controls / Personal Protection * * *

Exposure Guidelines

The OSHA air contaminants exposure limits (PELs) are those provided in the 1989 update to 29 CFR 1910.1000. These limits were vacated by OSHA and may not be enforceable.

Component Exposure Limits

Glass, oxide, chemicals (65997-17-3)

ACGIH:	10 mg/m3 TWA (inhalable particles, recommended); 3 mg/m3 TWA (respirable particles, recommended, related to Nuisance particulates)
OSHA (Final):	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction, related to Nuisance particulates)
OSHA (Vacated):	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction, related to Nuisance particulates)
Alberta:	10 mg/m3 TWA (total); 3 mg/m3 TWA (respirable, related to Nuisance particulates)
British Columbia:	10 mg/m3 TWA (total dust); 3 mg/m3 TWA (respirable fraction, related to Nuisance particulates)
Manitoba:	10 mg/m3 TWA (inhalable particles, recommended); 3 mg/m3 TWA (respirable particles, recommended, related to Nuisance particulates)
New Brunswick:	3 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction); 10 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, inhalable fraction, related to Nuisance particulates)
NW Territories:	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass, related to Nuisance particulates)
Nova Scotia:	10 mg/m3 TWA (inhalable particles, recommended); 3 mg/m3 TWA (respirable particles, recommended, related to Nuisance particulates)
Nunavut:	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass, related to Nuisance particulates)
Ontario:	10 mg/m3 TWA (inhalable particulate); 3 mg/m3 TWA (respirable particulate, related to Nuisance particulates)
Quebec:	10 mg/m3 TWAEV (including dust, inert or nuisance particulates; containing no Asbestos and <1% Crystalline silica, total dust, related to Nuisance particulates)
Saskatchewan:	10 mg/m3 TWA (insoluble or poorly soluble, inhalable fraction); 3 mg/m3 TWA (insoluble or poorly soluble, respirable fraction, related to Nuisance particulates) 20 mg/m3 STEL (insoluble or poorly insoluble, inhalable fraction); 6 mg/m3 STEL (insoluble or poorly insoluble, respirable fraction, related to Nuisance particulates)

Aluminum compounds (may apply to either metal, oxide, or insoluble compounds).

ACGIH:	1 mg/m3 TWA (respirable fraction, related to Aluminum)
OSHA (Final):	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
OSHA (Vacated):	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
NIOSH:	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust, related to Aluminum)
Alberta:	10 mg/m3 TWA
British Columbia:	1.0 mg/m3 TWA (respirable, related to Aluminum)
Manitoba:	1 mg/m3 TWA (respirable fraction, related to Aluminum)
New Brunswick:	10 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica)
NW Territories:	10 mg/m3 TWA; 5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)

	20 mg/m3 STEL
Nova Scotia:	1 mg/m3 TWA (respirable fraction, related to Aluminum)
Nunavut:	10 mg/m3 TWA; 5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)
	20 mg/m3 STEL
Ontario:	1 mg/m3 TWA (respirable, related to Aluminum)
Quebec:	10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, as Al, total dust)
Saskatchewan:	10 mg/m3 TWA
	20 mg/m3 STEL
Yukon:	30 mppcf TWA (Al2O3); 10 mg/m3 TWA (Al2O3)
	20 mg/m3 STEL (Al2O3)

Engineering Controls

If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear vented goggles for protection from dust.

Personal Protective Equipment: Skin

Wear leather or other appropriate work gloves, if necessary for type of operation. Wear cut resistant gloves when handling and appropriate clothing to keep dust from skin The use of coveralls is recommended.

Personal Protective Equipment: Respiratory

Not normally needed. If permissible levels are exceeded, use NIOSH approved dust respirator.

Personal Protective Equipment: General

Use good hygiene practices when handling this material including changing and laundering work clothing after use.

* * * Section 9 - Physical & Chemical Properties * * *

Appearance:	Transparent, smooth glass sheet	**Odor:**	None
Physical State:	Solid glass sheet	**pH:**	Not applicable
Vapor Pressure:	Not applicable	**Vapor Density:**	Not applicable
Boiling Point:	Not applicable	**Melting Point:**	Not applicable
Solubility (H2O):	Not available	**Specific Gravity:**	2.403
Freezing Point:	Not applicable	**Softening Point:**	>922°C (>1691°F)
Molecular Weight:	Not applicable	**Density:**	2.403 g/cm3
Auto Ignition:	Not applicable	**Flash Point:**	Not applicable
Flash Point Method:	Not applicable	**Lower Flammability Limit (LFL):**	Not applicable
Upper Flammability Limit (UFL):	Not applicable	**OSHA Flammability Classification:**	Will not burn

* * * Section 10 - Chemical Stability & Reactivity Information * * *

Chemical Stability

Stable at normal temperatures and pressure.

Chemical Stability: Conditions to Avoid

None known.

Incompatibility

None known.

Hazardous Decomposition

At very high temperatures irritating and toxic gaseous metallic oxides can be formed.

Possibility of Hazardous Reactions

Will not occur.

* * * Section 11 - Toxicological Information * * *

Acute Dose Effects

Overexposure to dusts of this product may produce eye irritation including redness, scratching of the cornea, and tearing. Mechanical irritation from inhalation of product dust may cause coughing, soreness of throat and nose, and sneezing. Very high exposures may cause difficulty in breathing, congestion, tightness of chest and hemorrhage.

Repeated Dose Effects

Repeated inhalation of dust of this product in very large amounts may cause damage to the lung.

Carcinogenicity

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP

Other Toxicological Information

Under normal conditions of use for this product, the likelihood of inhaling or ingesting amounts necessary for adverse effects to occur is very small.

* * * Section 12 - Ecological Information * * *

Ecotoxicity

No information available for the product.

Component Analysis - Ecotoxicity - Aquatic Toxicity

No ecotoxicity data are available for this product's components.

Environmental Fate

No information available.

* * * Section 13 - Disposal Considerations * * *

US EPA Waste Number & Descriptions

You must test your waste using methods described in 40 CFR Part 261 to determine if it meets these or other applicable definitions of hazardous wastes.

Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

You must test your waste using methods described in 40 CFR Part 261 to determine if it meets these or other applicable definitions of hazardous wastes. Waste must be handled in accordance with all applicable regulations. Glass products may be recycled.

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

* * * Section 14 - Transportation Information * * *

US DOT Information

Not regulated as a hazardous material.

TDG Information

Not regulated as a dangerous good.

IATA Information

Not regulated as dangerous good.

* * * Section 15 - Regulatory Information * * *

US Federal Regulations

This product contains metal(s), which as dusts, fumes or particulates, is subject to the reporting requirements of Section 313 of SARA and its associated regulations. If the physical form and usage meets the definition of an article, no reporting is necessary.

Component Analysis

None of this product's components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Glass, oxide, chemicals	65997-17-3	No	No	Yes	No	No
Aluminum Oxides	Not Available	Yes	Yes	Yes	No	Yes

State Regulations

Other state regulations may apply. Check individual state requirements.

Not regulated under California Proposition 65.

Canadian WHMIS Information

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by CPR.

WHMIS Classification:

This product is exempt as an article.

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Aluminum Oxides (Not Available)

1 %

Additional Regulatory Information

No additional information.

Inventory

Component	CAS #	TSCA	DSL	EINECS
Glass, oxide, chemicals	65997-17-3	Yes	Yes	Yes
Aluminum Oxides	Not Available	Yes	Yes	Yes

* * * Section 16 - Other Information * * *

Other Information

Reasonable care has been taken in the preparation of this information, but Corning makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. Corning makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.

MSDS History

Revision 1.0000, 11-JUN-2012: New MSDS.

Questions regarding information found in this document should be directed to the address and phone number shown in Section 1.

If additional information is needed contact:

Corning, Incorporated.

Safety Management Services
MP-HQ-01-E1H22A
Corning, NY 14831
Tel. No. (607)-974-6926 or (607)-974-8002

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; CAS = Chemical Abstracts Service; CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act; CFR = Code of Federal Regulations; CPR = Controlled Products Regulations; DOT = Department of Transportation; DSL = Domestic Substances List; EINECS = European Inventory of Existing Commercial Chemical Substances; EPA = Environmental Protection Agency; IARC = International Agency for Research on Cancer; IATA = International Air Transport Association; mg/Kg = milligrams per Kilogram; mg/L = milligrams per Liter; mg/m3 = milligrams per Cubic Meter; MSHA = Mine Safety and Health Administration; NA = Not Applicable or Not Available; NIOSH = National Institute for Occupational Safety and Health; NJTSR = New Jersey Trade Secret Registry; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; SARA = Superfund Amendments and Reauthorization Act; TDG = Transport Dangerous Goods; TSCA = Toxic Substances Control Act; WHMIS = Workplace Hazardous Materials Information System.

End of Sheet C-636