Corning® EAGLE XG[™] glass substrates Material Safety Data Sheet



ID: C-389 Issued: 2/9/2006 Published:

Section 1 – Chemical Product and Company Identification

Product Name: Corning® EAGLE XGTM glass substrates

Product Code: 2003

Chemical Name: Not available

Product Use: Used in the manufacture of glass articles

Manufacturer Information:

Corning Display Technologies Phone: (607) 974-9000 MP-HQ-W1 Fax: (607) 974-7097

Corning Incorporated Emergency # 24 Hr CHEMTREC: (800) 424-9300 (USA/Canada-Toll Free)
Corning, NY 14831 (703) 527-3887 (International-Call Collect)

General Information

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 – Composition / Information on Ingredients

| CAS# | Component | Percent |
|------------|-------------------------|---------|
| 65997-17-3 | Glass, oxide, chemicals | 100 |

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Nuisance particulates.

Component Information/Information on Non-Hazardous Components

Glass is a solid material produced by combining various raw materials (e.g. oxides, carbonates, etc.), melting these components together, and cooling to a 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.

Section 3 – Hazards Identification

Emergency Overview

This is a non-combustible, non-reactive solid material. It is supplied in the form of sheet glass. Use methods suitable to fight surrounding fire. Exposure to glass powder or dusts may be irritating to eyes, nose, and throat. At very high exposure levels the dust may have an effect on the lungs. The metallic elements contained in the glass may be biologically available if ingested or inhaled.

Hazard Statements

Dust or powder may be irritating to the eyes, skin, respiratory system and gastrointestinal tract.

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. Mechanical rubbing may increase skin irritation. 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 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

If material is ingested, do not induce vomiting.

First Aid: Inhalation

Move person to non-contaminated air. Call a physician if symptoms persist.

First Aid: Notes to Physician

None.

Section 5 – Fire Fighting Measures

Flash Point: Not applicable Method Used: Not applicable

Upper Flammable Limit (UFL): Not applicable **Lower Flammable Limit (LFL):** Not applicable

Auto Ignition: Not applicable Flammability Classification: Will not burn

Rate of Burning: Not applicable

General Fire Hazards: This material will not burn.

Hazardous Combustion Products

Material will begin softening at about 970°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

Avoid inhalation of dusts. Avoid contact with skin and eyes. Wash thoroughly after handling. Keep container closed and dry.

Storage Procedures

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

Section 8 - Exposure Controls / Personal Protection

Exposure Guidelines

A: General Product Information

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 Particulates (insoluble or poorly soluble) not

otherwise specified (PNOS))

OSHA (Final): 15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction) (related to

Particulates not otherwise regulated)

OSHA (Vacated): 15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction) (related to

Particulates not otherwise regulated)

Engineering Controls

Use appropriate local exhaust ventilation to keep exposures below the regulated limits.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear vented goggles for protection.

Personal Protective Equipment: Skin

Wear leather or other appropriate work gloves, if necessary for type of operation. Wear coveralls.

Personal Protective Equipment: Respiratory

Not normally needed. If permissible levels are exceeded, use NIOSH/MSHA 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: Clear glass pH: Not applicable **Physical State: Sheet Glass** Vapor Density: Not applicable **Vapor Pressure:** Not applicable **Melting Point:** Not applicable **Boiling Point:** Not applicable **Freezing Point:** Not applicable Solubility (H₂O): Not applicable **Specific Gravity:** Not available **Softening Point:** 970°C (1778° F) **Bulk Density:** Not applicable Odor: None **Density:** 2.383 gm/cm3

Molecular Weight: Not applicable

Section 10 – Chemical Stability & Reactivity Information

Chemical Stability

Stable.

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.

Hazardous Polymerization

Will not occur.

Section 11 – Toxicological Information

Acute Toxicity

A: General Product Information

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.

B: Component Analysis - LD50/LC50

Component Analysis - LD50/LC50

No LD50/LC50's are available for this product's components.

Carcinogenicity

A: General Product Information

No additional information.

B: 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 glass products, the likelihood of inhaling or ingesting amounts necessary for these effects to occur is very small.

Section 12 – Ecological Information

Ecotoxicity

A: General Product Information

No information available.

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

A: General Product Information

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

Waste must be handled in accordance with all applicable regulations. Glass products may be recycled.

Section 14 – Transportation Information

US DOT Information

Shipping Name: Not regulated as a hazardous material for transportation.

Section 15 – Regulatory Information

US Federal Regulations

A: General Product Information

All components are on the U.S. EPA TSCA Inventory List.

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).

State Regulations

A: General Product Information

Other state regulations may apply. Check individual state requirements.

B: Component Analysis – State

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

| Component | CAS | $\mathbf{C}\mathbf{A}$ | MA | MN | NJ | PA | RI |
|--------------------------------------|------------|------------------------|----|-----|----|----|------|
| Glass, oxide, chemicals (¹related to | 65997-17-3 | No | No | Yes | No | No | Yes1 |
| Nuisance particulates) | | | | | | | |

Other Regulations

A: General Product Information

All components are on the U.S. EPA TSCA Inventory List.

B: Component Analysis – Inventory

Component Analysis - Inventory

| Component | CAS# | TSCA | DSL | EINECS |
|-------------------------|------------|------|-----|--------|
| Glass, oxide, chemicals | 65997-17-3 | Yes | Yes | Yes |

C: Component Analysis - WHMIS IDL

Component Analysis - WHMIS IDL

No components are listed in the WHMIS IDL.

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.

Revision Information: Revision 3.0000, 30-JAN-2006: Section 16 update.

Revision 2.0000, 14-DEC-2005: Product name update.

Revision 1.0000, 31-OCT-2005: New MSDS.

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists. CERCLA = Comprehensive
Environmental Response, Compensation and Liability Act. CFR = Code of Federal Regulations.

DSL = Canadian Domestic Substance List. EINECS = European Inventory of New and Existing
Chemical Substances. EPA = Environmental Protection Agency. HEPA = High Efficiency Particulate Air.

HMIS = Hazardous Material Identification System. IARC = International Agency for Research on
Cancer. NFPA = National Fire Protection Association. NIOSH = National Institute of Occupational Safety
and Health. NJTSR = New Jersey Trade Secret Registry. NTP = National Toxicology Program.

OSHA = Occupational Safety and Health Administration. NA = Not available or Not Applicable.

SARA = Superfund Amendments and Reauthorization Act. TLV = Threshold Limit Value. TSCA = Toxic

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