

Prime-Shield MC 4390 aluminium

SECTION 1. IDENTIFICATION

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|--------------------------------------|--|
| Product Identifier | Prime-Shield MC 4390 aluminium |
| Other Means of Identification | polyurethane |
| Product Family | Polyurethane |
| Manufacturer | Glass-Shield, 111 Bombardier, Chateauguay, Quebec, J6J 4Z2, H&S Department, 1-800-361-6652 |
| Emergency Phone No. | CANUTEC, 1-613-996-6666, 24 hours |
| SDS No. | 0083 |
| Date of Preparation | avril 23, 2015 |

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquid - Category 2; Acute toxicity (Inhalation) - Category 2; Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 1; Aspiration hazard - Category 1; Aquatic hazard (Acute) - Category 2

GHS Label Elements



Signal Word:

Danger

Highly flammable liquid and vapour.

May be fatal if swallowed and enters airways.

Causes skin irritation.

Causes serious eye damage.

Toxic to aquatic life.

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear protective gloves/eye protection/face protection.

IF SWALLOWED: Immediately call a POISON CENTRE/doctor

Wear respiratory protection (NIOSH approved self-contained breathing apparatus (SCBA) or supplied air respirator).

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

| Chemical Name | CAS No. | % | Other Identifiers |
|------------------------|-----------|--------|-------------------|
| Xylene (mixed isomers) | 1330-20-7 | 10-30% | |

| | | | |
|-------------------------------------|------------|--------|--|
| n-Butyl acetate | 123-86-4 | 10-30% | |
| 4,4'-Methylenediphenyl diisocyanate | 101-68-8 | 7-13% | |
| Light aromatic solvent naphtha | 64742-95-6 | 5-10% | |
| Zinc oxide | 1314-13-2 | 5-10% | |
| Ethyl Benzene | 100-41-4 | 1-5% | |
| Aluminum powder, uncoated | 7429-90-5 | 1-5% | |

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Move to fresh air. Keep at rest in a position comfortable for breathing. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor.

Skin Contact

Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. Call a Poison Centre or doctor if you feel unwell or are concerned.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice/attention.

Ingestion

Rinse mouth with water. Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Immediately call a Poison Centre or doctor.

First-aid Comments

Some of the first-aid procedures recommended here require advanced first-aid training.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media

Water is not effective for extinguishing a fire. It may not cool product below its flash point.

Specific Hazards Arising from the Chemical

Reactive flammable. Heating increases the release of toxic vapour.

In a fire, the following hazardous materials may be generated: flammable chemicals; irritating chemicals; toxic chemicals; very toxic carbon monoxide, carbon dioxide.

Special Protective Equipment and Precautions for Fire-fighters

Use extreme caution. Fight fire from a safe distance or a protected location.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Eliminate all ignition sources. Use grounded, explosion-proof equipment.

Environmental Precautions

It is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas.

Methods and Materials for Containment and Cleaning Up

Stop or reduce leak if safe to do so. Contain and soak up spill with absorbent that does not react with spilled product. Do not use absorbents. Contain spill using noncombustible material such as vermiculite, earth or sand. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal.

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Other Information

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Prevent all skin contact. Obtain special instructions before use. Only use where there is adequate ventilation. Avoid release to the environment. Immediately report leaks, spills or failures of the safety equipment (e.g. ventilation system).

Conditions for Safe Storage

Store in an area that is: cool, temperature-controlled, dry, well-ventilated, clear of combustible and flammable materials (e.g. old rags, cardboard). Restrict access to authorized personnel only.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

| Chemical Name | ACGIH TLV® | | OSHA PEL | | AIHA WEEL | |
|-------------------------------------|-----------------|-----------------|-----------------|---------|-----------|-----|
| | TWA | STEL | TWA | Ceiling | 8-hr TWA | TWA |
| Xylene (mixed isomers) | 100 ppm A4 | 150 ppm A4 | 100 ppm | | | |
| Ethyl Benzene | 150 ppm | 200 ppm | 150 ppm | | | |
| n-Butyl acetate | 100 ppm | 100 ppm | 100 ppm | | | |
| Light aromatic solvent naphtha | 100 ppm | 100 ppm | 100 ppm | | | |
| 4,4'-Methylenediphenyl diisocyanate | 0,005 ppm | Not established | Not established | | | |
| Aluminum powder, uncoated | Not established | 1 mg/m3 A4 | 5 mg/m3 | | | |
| Zinc oxide | 2 mg/m3 | 10 mg/m3 | 5 mg/m3 | | | |

Appropriate Engineering Controls

Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored. Control static electricity discharges which includes bonding of equipment to ground. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.
Nitrile rubber.

Respiratory Protection

Wear a NIOSH approved air-purifying respirator with an organic vapour cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

| | |
|------------------------------|--|
| Appearance | Colourless. Particle Size: Not applicable |
| Odour | Ethereal (Ethyl Benzene) |
| Odour Threshold | 1 ppm |
| pH | Not applicable |
| Melting Point/Freezing Point | Not available (melting); -47 °C (freezing) |
| Initial Boiling Point/Range | 136 °C |
| Flash Point | 24 °C |
| Evaporation Rate | 1 |
| Flammability (solid, gas) | Not available |

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| Upper/Lower Flammability or Explosive Limit | 7% (upper); 1% (lower) |
| Vapour Pressure | > 1 kPa |
| Vapour Density (air = 1) | 4 |
| Relative Density (water = 1) | 1 |
| Solubility | Practically insoluble (less than 1 g/L) in water; Soluble in all proportions in common organic solvents. |
| Partition Coefficient, n-Octanol/Water (Log Kow) | Not available |
| Auto-ignition Temperature | 464 °C |
| Decomposition Temperature | Not available |
| Viscosity | Not available (kinematic); Not available (dynamic) |
| Other Information | |
| Physical State | Liquid |
| Molecular Formula | Not available |
| Molecular Weight | Not available |
| Bulk Density | Not available |
| Surface Tension | Not available |
| Critical Temperature | Not available |
| Electrical Conductivity | Not available |
| Vapour Pressure at 50 deg C | Not available |
| Saturated Vapour Concentration | Not available |

SECTION 10. STABILITY AND REACTIVITY

Reactivity

May cause or intensify fire.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

Reacts in the presence of acidic conditions (low pH).

Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources. Acidic conditions (low pH). Incompatible materials. Temperatures above 40 °C

Incompatible Materials

Organic acids (e.g. acetic acid).

Not corrosive to metals.

Hazardous Decomposition Products

Very toxic carbon monoxide, carbon dioxide.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity

| Chemical Name | LC50 | LD50 (oral) | LD50 (dermal) |
|------------------------|----------------------------------|------------------------|-----------------------|
| Xylene (mixed isomers) | 6700 ppm (rat) (4-hour exposure) | 3523 mg/kg (rat) | Not available |
| Ethyl Benzene | 2000 ppm (rat) (4-hour exposure) | 12700 mg/kg (male rat) | < 5000 mg/kg (rabbit) |
| n-Butyl acetate | > 14.4 mg/L (rat) (4-hour) | 8400 mg/kg (rat) | > 3160 mg/kg (rabbit) |

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| | exposure) | | |
| Light aromatic solvent naphtha | > 14.4 mg/L (rat) (4-hour exposure) | 8400 mg/kg (rat) | > 3160 mg/kg (rabbit) |
| 4,4'-Methylenediphenyl diisocyanate | 490 mg/m3 (rat) (4-hour exposure) | < 2000 mg/kg (rat) | < 9400 mg/kg (rabbit) |
| Aluminum powder, uncoated | < 1000 mg/m3 (rat) (4-hour exposure) | Not available | Not available |
| Zinc oxide | 2500 mg/m3 (mouse) Unspecified | 7950 mg/kg (mouse) | Not available |

Skin Corrosion/Irritation

Human experience shows moderate or severe irritation.

Serious Eye Damage/Irritation

Human experience and animal tests show mild irritation.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May be harmful based on animal tests.

Skin Absorption

Harmful based on human experience and animal tests.

Ingestion

Based on human experience and animal tests.

Aspiration Hazard

Symptoms may include coughing, choking, shortness of breath, difficult or rapid breathing, and wheezing.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Based on studies in people and animals.

Respiratory and/or Skin Sensitization

Not known to be a respiratory sensitizer.

Carcinogenicity

| Chemical Name | IARC | ACGIH® | NTP | OSHA |
|-------------------------------------|---------------|----------------|------------|------|
| Xylene (mixed isomers) | Group 3 | | | |
| Ethyl Benzene | Not evaluated | | | |
| n-Butyl acetate | Not evaluated | | | |
| Light aromatic solvent naphtha | Not evaluated | | | |
| 4,4'-Methylenediphenyl diisocyanate | Group 3 | Not designated | Not Listed | |
| Aluminum powder, uncoated | Not evaluated | A4 | Not Listed | |
| Zinc oxide | Not evaluated | Not designated | Not Listed | |

Reproductive Toxicity

Development of Offspring

No information was located.

Sexual Function and Fertility

No information was located.

Effects on or via Lactation

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

(Xylene (mixed isomers)). (Ethyl Benzene). (Light aromatic solvent naphtha). (n-Butyl acetate)

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Persistence and Degradability

Does not degrade rapidly based on quantitative tests.

Bioaccumulative Potential

This product and its degradation products are not known to bioaccumulate.

Mobility in Soil

If released into the environment, this product can move rapidly through the soil.

Other Adverse Effects

This product contains volatile organic compounds.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal Methods**

Recycle and reuse product, if possible. Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction. Dispose of or recycle empty containers through an approved waste management facility.

SECTION 14. TRANSPORT INFORMATION

| Regulation | UN No. | Proper Shipping Name | Transport Hazard Class(es) | Packing Group |
|------------|--------|--------------------------------|----------------------------|---------------|
| US DOT | 1263 | PRIME-SHIELD MC 4390 aluminium | 3 | III |

Special Precautions for User Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION**Safety, Health and Environmental Regulations****Canada****WHMIS Classification**

Class B2



Class D2B

B2 - Flammable Liquid; D2B - Toxic

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL.

CEPA - National Pollutant Release Inventory (NPRI)

Part 1A.

USA**Toxic Substances Control Act (TSCA) Section 8(b)**

All ingredients are listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

Revision Indicators The following MSDS content was changed on avril 23, 2015:
Section 11 - Toxicological Information; LC50/LD50 values.

Key to Abbreviations ACGIH® = American Conference of Governmental Industrial Hygienists
AIHA = American Industrial Hygiene Association
HSDB® = Hazardous Substances Data Bank

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IARC = International Agency for Research on Cancer
NFPA = National Fire Prevention Association
NIOSH = National Institute for Occupational Safety and Health
NTP = National Toxicology Program
OSHA = US Occupational Safety and Health Administration
RTECS® = Registry of Toxic Effects of Chemical Substances

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