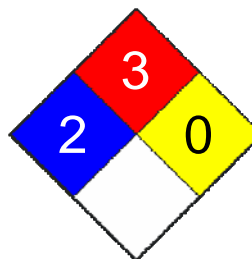


1. Product and Company Identification

Product Name Glass Frost - AC010801
CAS # Mixture
Product Use Treatment
Manufacturer Dynamic Paint Products Inc.
 7040 Financial Drive
 Mississauga, ON L5N 7H5 CA
 Phone: 1-905-812-9319
 Emergency Phone: 1-613-996-6666 (CANUTEC)

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	* 2
Flammability	3
Physical Hazard	0
Personal Protection	B



2. Hazards Identification

Emergency Overview

DANGER
 Flammable liquid - may release vapours that form flammable mixtures at or above the flash point.
 Containers may explode when heated.
EYE AND SKIN IRRITANT.
 May cause sensitisation by skin contact.
 May cause chronic toxic effects.
 Contains a potential teratogen.
 Contains material which may cause cancer.

Potential short term health effects

Routes of exposure Eye, Skin contact, Skin absorption, Inhalation, Ingestion.
Eyes Can cause severe eye irritation.
Skin Contact with skin can cause irritation and allergic reaction (sensitization) in some individuals.
 May be absorbed through the skin.

ACGIH - Threshold Limit Values - Skin Notations

Cyclohexanone	108-94-1	Skin - potential significant contribution to overall exposure by the cutaneous route
Methyl alcohol	67-56-1	Skin - potential significant contribution to overall exposure by the cutaneous route
Naphthalene	91-20-3	Skin - potential significant contribution to overall exposure by the cutaneous route

NIOSH - Pocket Guide - Skin Notations

Cyclohexanone	108-94-1	Potential for dermal absorption
Methyl alcohol	67-56-1	Potential for dermal absorption
N-Butyl alcohol	71-36-3	Potential for dermal absorption

Inhalation

Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).

Ingestion

Harmful if swallowed. May cause stomach distress, nausea or vomiting.

Target organs

Blood. Eyes. Kidney. Liver. Respiratory system. Skin.

Chronic effects

Prolonged or repeated exposure can cause drying, defatting and dermatitis.

Signs and symptoms

Symptoms may include redness, oedema, drying, defatting and cracking of the skin.
 Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

3. Composition/Information on Ingredients

Ingredient(s)	CAS #	Percent
Ethylene glycol monobutyl ether	111-76-2	0.5 - 1.5
Methyl alcohol	67-56-1	1 - 5
Naphthalene	91-20-3	10 - 30
Ethylacetate	141-78-6	10 - 30
Cyclohexanone	108-94-1	10 - 30
Xylene	1330-20-7	15 - 40
Toluene	108-88-3	15 - 40
N-Butyl alcohol	71-36-3	3 - 7
Isopropanol	67-63-0	3 - 7
N-Butyl acetate	123-86-4	7 - 13

4. First Aid Measures

First aid procedures

Eye contact	Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.
Skin contact	Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.
Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
Ingestion	Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.

Notes to physician

Symptoms may be delayed.

General advice

Keep away from sources of ignition. No smoking. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire-fighting Measures

Flammable properties

Flammable by WHMIS criteria.
Vapours may travel to a source of ignition and flash back.
Containers may explode when heated.

Extinguishing media

Suitable extinguishing media Dry chemical. Foam. Carbon dioxide.

Unsuitable extinguishing media Not available

Protection of firefighters

Specific hazards arising from the chemical Not available

Protective equipment for firefighters Firefighters should wear full protective clothing including self contained breathing apparatus.

Hazardous combustion products

May include and are not limited to: Oxides of carbon.

Explosion data

Sensitivity to mechanical impact Not available

Sensitivity to static discharge Not available

6. Accidental Release Measures

Personal precautions

Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.

Methods for containment

Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.

Methods for cleaning up

Remove sources of ignition. Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use.

7. Handling and Storage

Handling

Use according to package label instructions. Avoid breathing vapours or mists of this product.

Storage

Keep out of reach of children. Store in a closed container away from incompatible materials. Keep away from heat, open flames or other sources of ignition.

8. Exposure Controls / Personal Protection

Exposure limit values**Ingredient(s)****Exposure limit values**

Cyclohexanone

ACGIH-TLV

TWA: 20 ppm

STEL: 50 ppm

Ethylacetate

ACGIH-TLV

TWA: 400 ppm

Ethylene glycol monobutyl ether

ACGIH-TLV

TWA: 20 ppm

Isopropanol

ACGIH-TLV

TWA: 200 ppm

STEL: 400 ppm

Methyl alcohol

ACGIH-TLV

TWA: 200 ppm

STEL: 250 ppm

Naphthalene

ACGIH-TLV

TWA: 10 ppm

STEL: 15 ppm

N-Butyl acetate

ACGIH-TLV

TWA: 150 ppm

STEL: 200 ppm

N-Butyl alcohol

ACGIH-TLV

TWA: 20 ppm

Toluene

ACGIH-TLV

TWA: 20 ppm

Skin: 50 ppm

Xylene

ACGIH-TLV

TWA: 100 ppm

STEL: 150 ppm

Engineering controls

Use only under good ventilation conditions or with respiratory protection.

Personal protective equipment**Eye/Face protection**

Wear safety glasses with side shields.

Hand protection

Rubber gloves. Confirm with a reputable supplier first.

Skin and body protection

As required by employer code.

Respiratory protection

Not normally required if good ventilation is maintained and exposure guidelines are not exceeded. Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Appearance	Liquid
Colour	Milky.
Form	Liquid
Odour	Hydrocarbon
Odour threshold	Not available
Physical state	Liquid
pH	Not available
Freezing point	Not available
Boiling point	110 °C (230.00 °F)
Pour point	Not available
Flash point	6 °C (42.80 °F) TCC
Evaporation Rate	> 1 (Ether = 1)
Flammability limits in air, lower, % by volume	1.3
Flammability Limits in Air, Upper, % by Volume	6.7
Vapour pressure	7.6 mmHg
Vapour density	> 1 (Air = 1)
Specific gravity	1.22 (H ₂ O = 1)
Octanol/water coefficient	Not available
Solubility (H₂O)	Negligible
Auto-ignition temperature	Not available
VOC (Weight %)	100
Viscosity	Water thin

10. Stability and Reactivity

Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Do not mix with other chemicals. Avoid high temperatures.
Incompatible materials	Caustics. Acids. Oxidizers. Metals.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon.
Possibility of hazardous reactions	Hazardous polymerisation does not occur.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	LC50
Cyclohexanone	2639 ppm rat; 10.7 mg/l/4h rat
Ethylacetate	Not available
Ethylene glycol monobutyl ether	2.21 mg/l/4h rat
Isopropanol	16970 mg/l/4h rat
Methyl alcohol	83.2 mg/l/4h rat
Naphthalene	Not available
N-Butyl acetate	2000 ppm rat; 2000 mg/l/4h rat
N-Butyl alcohol	17.7 mg/l/4h rat
Toluene	12.5 mg/l/4h rat
Xylene	5000 mg/l/4h rat

Component analysis - Oral LD50

Ingredient(s)	LD50
Cyclohexanone	800 mg/kg rat
Ethylacetate	5620 mg/kg rat; 4100 mg/kg mouse; 4935 mg/kg rabbit; 5500 mg/kg guinea pig
Ethylene glycol monobutyl ether	470 mg/kg rat; 320 mg/kg rabbit
Isopropanol	4396 mg/kg rat
Methyl alcohol	5628 mg/kg rat; 7300 mg/kg mouse; 14200 mg/kg rabbit; 7600 mg/kg Monkey
Naphthalene	490 mg/kg rat; 533 mg/kg mouse; 1200 mg/day guinea pig
N-Butyl acetate	10770 mg/kg rat; 7100 mg/kg mouse; 7400 mg/kg rabbit
N-Butyl alcohol	790 mg/kg rat
Toluene	636 mg/kg rat
Xylene	4300 mg/kg rat

Effects of acute exposure

Eye	Can cause severe eye irritation.
Skin	Contact with skin can cause irritation and allergic reaction (sensitization) in some individuals. May be absorbed through the skin.

ACGIH - Threshold Limit Values - Skin Notations

Cyclohexanone	108-94-1	Skin - potential significant contribution to overall exposure by the cutaneous route
Methyl alcohol	67-56-1	Skin - potential significant contribution to overall exposure by the cutaneous route
Naphthalene	91-20-3	Skin - potential significant contribution to overall exposure by the cutaneous route

NIOSH - Pocket Guide - Skin Notations

Cyclohexanone	108-94-1	Potential for dermal absorption
Methyl alcohol	67-56-1	Potential for dermal absorption
N-Butyl alcohol	71-36-3	Potential for dermal absorption

Inhalation Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).

Ingestion Harmful if swallowed. May cause stomach distress, nausea or vomiting.

Sensitisation Contains a potential skin sensitizer.

Chronic effects Ethylene glycol monobutyl ether may be absorbed through the skin in toxic amounts if contact is repeated and prolonged; may cause blood damage based on published data. These effects have not been observed in humans.

Carcinogenicity Contains a potential carcinogen.

ACGIH - Threshold Limit Values - Carcinogens

Cyclohexanone	108-94-1	A3 - Confirmed animal carcinogen with unknown relevance to humans.
Isopropanol	67-63-0	A4 - Not Classifiable as a Human Carcinogen
Naphthalene	91-20-3	A4 - Not Classifiable as a Human Carcinogen
Toluene	108-88-3	A4 - Not Classifiable as a Human Carcinogen
Xylene	1330-20-7	A4 - Not Classifiable as a Human Carcinogen

IARC - Group 2B (Possibly Carcinogenic to Humans)

Naphthalene	91-20-3	Monograph 82 [2002]
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IARC - Group 3 (Not Classifiable)

Cyclohexanone	108-94-1	Monograph 71 [1999], Monograph 47 [1989]
Isopropanol	67-63-0	Monograph 71 [1999], Supplement 7 [1987], Monograph 15 [1977]
Toluene	108-88-3	Monograph 71 [1999], Monograph 47 [1989]
Xylene	1330-20-7	Monograph 71 [1999], Monograph 47 [1989]

U.S. - California - Proposition 65 - Carcinogens List

Naphthalene	91-20-3	carcinogen, initial date 4/19/02
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Mutagenicity Non-hazardous by WHMIS criteria.

Reproductive effects Non-hazardous by WHMIS criteria.

Teratogenicity Contains potential teratogens.
Methanol has produced teratogenic effects in mice exposed by inhalation to high concentrations that did not produce significant maternal toxicity.
Toluene (benzene, methyl-) has caused fetotoxicity (reduced fetal weight), behavioural effects (effects on learning and memory) and hearing loss (in males). These effects have been observed in the offspring of rats exposed by inhalation to 1200 or 1800 ppm toluene. These effects were observed in the absence of maternal toxicity.

Synergistic Materials Not available

12. Ecological Information

Ecotoxicity

Components of this product have been identified as having potential environmental concerns.

Ecotoxicity - Freshwater Algae Data

Cyclohexanone	108-94-1	96 Hr EC50 Chlorella vulgaris: 20 mg/L
Ethylacetate	141-78-6	48 Hr EC50 Scenedesmus subspicatus: 3300 mg/L
Isopropanol	67-63-0	96 Hr EC50 Scenedesmus subspicatus: >1000 mg/L; 72 Hr EC50 Scenedesmus subspicatus: >1000 mg/L
Naphthalene	91-20-3	96 Hr EC50 Skeletonema costatum: 0.4 mg/L
N-Butyl acetate	123-86-4	96 Hr EC50 Scenedesmus subspicatus: 320 mg/L; 72 Hr EC50 Scenedesmus subspicatus: 674.7 mg/L
N-Butyl alcohol	71-36-3	96 Hr EC50 Scenedesmus subspicatus: >500 mg/L; 72 Hr EC50 Scenedesmus subspicatus: >500 mg/L
Toluene	108-88-3	96 Hr EC50 Selenastrum capricornutum: >433 mg/L

Ecotoxicity - Freshwater Fish Species Data

Cyclohexanone	108-94-1	96 Hr LC50 Pimephales promelas: 481-578 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 8.9 mg/L
Ethylacetate	141-78-6	96 Hr LC50 Pimephales promelas: 220-250 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 484 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 352-500 mg/L [semi-static]
Isopropanol	67-63-0	96 Hr LC50 Pimephales promelas: 9640 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 11130 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: >1400000 µg/L
Methyl alcohol	67-56-1	96 Hr LC50 Pimephales promelas: 28200 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: >100 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 19500-20700 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 18-20 ml/L [static]; 96 Hr LC50 Lepomis macrochirus: 13500-17600 mg/L [flow-through]
Naphthalene	91-20-3	96 Hr LC50 Pimephales promelas: 5.74-6.44 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 1.6 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 0.91-2.82 mg/L [static]; 96 Hr LC50 Pimephales promelas: 1.99 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 31.0265 mg/L [static]
N-Butyl acetate	123-86-4	96 Hr LC50 Pimephales promelas: 17-19 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 100 mg/L [static]; 96 Hr LC50 Leuciscus idus: 62 mg/L [static]
N-Butyl alcohol	71-36-3	96 Hr LC50 Pimephales promelas: 1730-1910 mg/L [static]; 96 Hr LC50 Pimephales promelas: 1740 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 100000-500000 µg/L [static]; 96 Hr LC50 Pimephales promelas: 1910000 µg/L [static]
Toluene	108-88-3	96 Hr LC50 Pimephales promelas: 15.22-19.05 mg/L [flow-through] (1 day old); 96 Hr LC50 Pimephales promelas: 12.6 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 5.89-7.81 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 14.1-17.16 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 5.8 mg/L [semi-static]; 96 Hr LC50 Lepomis macrochirus: 11.0-15.0 mg/L [static]; 96 Hr LC50 Oryzias latipes: 54 mg/L [static]; 96 Hr LC50 Poecilia reticulata: 28.2 mg/L [semi-static]; 96 Hr LC50 Poecilia reticulata: 50.87-70.
Xylene	1330-20-7	96 Hr LC50 Pimephales promelas: 13.4 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 2.661-4.093 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 13.5-17.3 mg/L; 96 Hr LC50 Lepomis macrochirus: 13.1-16.5 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 19 mg/L; 96 Hr LC50 Lepomis macrochirus: 7.711-9.591 mg/L [static]; 96 Hr LC50 Pimephales promelas: 23.53-29.97 mg/L [static]; 96 Hr LC50 Cyprinus carpio: 780 mg/L [semi-static]; 96 Hr LC50 Cyprinus carpio: >780 mg/L; 96 Hr LC50 Poecilia reticulata: 30.26-40.

Ecotoxicity - Microtox Data

Cyclohexanone	108-94-1	5 min EC50 Photobacterium phosphoreum: 25 mg/L; 10 min EC50 Photobacterium phosphoreum: 21.3 mg/L; 5 min EC50 Photobacterium phosphoreum: 18.5 mg/L
Ethylacetate	141-78-6	5 min EC50 Photobacterium phosphoreum: 1180 mg/L; 15 min EC50 Photobacterium phosphoreum: 5870 mg/L; 2 Hr EC50 Pseudomonas fluorescens: 7400 mg/L; 15 min EC50 Pseudomonas fluorescens: 1500 mg/L
Isopropanol	67-63-0	5 min EC50 Photobacterium phosphoreum: 35390 mg/L
Methyl alcohol	67-56-1	5 min EC50 Photobacterium phosphoreum: 43000 mg/L; 15 min EC50 Photobacterium phosphoreum: 40000 mg/L; 25 min EC50 Photobacterium phosphoreum: 39000 mg/L
Naphthalene	91-20-3	30 min EC50 Photobacterium phosphoreum: 0.93 mg/L; 18 Hr EC50 Pseudomonas putida: >20 mg/L
N-Butyl acetate	123-86-4	5 min EC50 Photobacterium phosphoreum: 70.0 mg/L; 15 min EC50 Photobacterium phosphoreum: 82.2 mg/L; 30 min EC50 Photobacterium phosphoreum: 98.9 mg/L; 18 Hr EC50 Pseudomonas putida: 959 mg/L
N-Butyl alcohol	71-36-3	5 min EC50 Photobacterium phosphoreum: 2041.4 mg/L; 30 min EC50 Photobacterium phosphoreum: 2186 mg/L; 17 Hr EC50 Pseudomonas putida: 4400 mg/L; 24 Hr EC50 Aerobic heterotroph: 3980 mg/L
Toluene	108-88-3	30 min EC50 Photobacterium phosphoreum: 19.7 mg/L
Xylene	1330-20-7	24 hr EC50 Photobacterium phosphoreum: 0.0084 mg/L

Ecotoxicity - Water Flea Data

Cyclohexanone	108-94-1	48 Hr EC50 water flea: 820 mg/L; 48 Hr EC50 Daphnia magna: 800 mg/L
Ethylacetate	141-78-6	48 Hr EC50 Daphnia magna: 717 mg/L
Isopropanol	67-63-0	48 Hr EC50 Daphnia magna: 13299 mg/L
Naphthalene	91-20-3	48 Hr EC50 water flea: 2.16 mg/L
N-Butyl acetate	123-86-4	48 Hr EC50 water flea: 44 mg/L
N-Butyl alcohol	71-36-3	48 Hr EC50 Daphnia magna: 1983 mg/L

Toluene	108-88-3	48 Hr EC50 water flea: 11.3 mg/L; 48 Hr EC50 water flea: 310 mg/L; 48 Hr EC50 Daphnia magna: 11.3 mg/L
Xylene	1330-20-7	48 Hr EC50 water flea: 3.82 mg/L; 48 Hr LC50 Gammarus lacustris: 0.6 mg/L

Environmental effects	Harmful to aquatic life.
Aquatic toxicity	Not available
Persistence and degradability	Not available
Bioaccumulation/accumulation	Not available
Partition coefficient	Not available
Mobility in environmental media	Not available
Chemical fate information	Not available
Other adverse effects	Not available

13. Disposal Considerations

Waste codes	Not available
Disposal instructions	Review federal, provincial, and local government requirements prior to disposal.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

Proper shipping name	PAINT
Hazard class	3
UN number	1263
Packing group	II
Additional information:	
Special provisions	59



15. Regulatory Information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Canada - CEPA - High Priority Chemicals as Identified by DSL Categorization

Naphthalene	91-20-3	Batch 1, published February 3, 2007
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Canada - CEPA - Schedule I - List of Toxic Substances

Naphthalene	91-20-3	[SOR/2000-109]
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Canada - WHMIS - Ingredient Disclosure List

Cyclohexanone	108-94-1	0.1 %
Ethylacetate	141-78-6	1 %
Isopropanol	67-63-0	1 %
Methyl alcohol	67-56-1	1 %
Naphthalene	91-20-3	1 %
N-Butyl acetate	123-86-4	1 %
N-Butyl alcohol	71-36-3	1 %
Toluene	108-88-3	1 %

WHMIS classification Class B - Division 2 - Flammable Liquid, Class D - Division 2A, 2B

WHMIS status Controlled

WHMIS labeling



Inventory Status

Country(s) or region	Inventory Name	On Inventory (Yes/No)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

Disclaimer

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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Expiry Date

15-Aug-2012

Prepared by

Dell Tech Laboratories Ltd. (519) 858-5021

Other Information

For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.