



Material Safety Data Sheet

Revision Date: 29-Jun-2015

Revision Number: 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name EPOXY SWIMMING POOL PAINT BLACK
Product Code IG-4020FR
Product Class EPOXY
Color Black

Manufacturer
Benjamin Moore & Co.
101 Paragon Drive
Montvale, NJ 07645
Phone: 800-225-5554
insl-x.com

Emergency Telephone Number(s)
CANUTEC: 613-996-6666

2. COMPOSITION INFORMATION ON COMPONENTS

Chemical Name	CAS-No	Weight % (max)
Polyamide polymer	-	15 - 40%
Kaolin	1332-58-7	10 - 30%
Xylene	1330-20-7	10 - 30%
Ethyl benzene	100-41-4	1 - 5%
Propylene glycol monomethyl ether	107-98-2	1 - 5%
Propylene glycol monomethyl ether acetate	108-65-6	1 - 5%
2-Pentanone, 4-methyl-	108-10-1	1 - 5%
Carbon black	1333-86-4	1 - 5%
Phenol, 2,4,6-tris[(dimethylamino)methyl]-	90-72-2	0.5 - 1%
Titanium dioxide	13463-67-7	0.25 - 0.5%

3. HAZARDS IDENTIFICATION

Emergency Overview

DANGER

Flammable. Vapors may cause flash fire. Harmful if swallowed. Vapor harmful. Harmful by inhalation. Vapors may be irritating to eyes, nose, throat, and lungs. May cause skin irritation and/or dermatitis.

IMPORTANT: Designed to be mixed with other components. Mixture will have hazards of all components.

Appearance liquid

Odor solvent

Potential Health Effects

Principal Routes of Exposure Eye contact, skin contact and inhalation.

Acute Effects

Eyes

Contact with eyes may cause irritation.

Skin

May cause skin irritation and/or dermatitis.

Inhalation

Harmful by inhalation. High vapor / aerosol concentrations are irritating to the eyes, nose, throat and lungs and may cause headaches, dizziness, drowsiness, unconsciousness, and other central nervous system effects.

Ingestion

Harmful if swallowed. Ingestion may cause irritation to mucous membranes. Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death.

Chronic Effects

Avoid repeated exposure. Prolonged exposure may cause chronic effects.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions None known.

HMIS Health: 2* Flammability: 3 Reactivity: 0 PPE: -

HMIS Legend

0 - Minimal Hazard

1 - Slight Hazard

2 - Moderate Hazard

3 - Serious Hazard

4 - Severe Hazard

* - Chronic Hazard

X - Consult your supervisor or S.O.P. for "Special" handling instructions.

Note: The PPE rating has intentionally been left blank. Choose appropriate PPE that will protect employees from the hazards the material will present under the actual normal conditions of use.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer, has chosen to provide them. HMIS® ratings are to be used only in conjunction with a fully implemented HMIS® program by workers who have received appropriate HMIS® training. HMIS® is a registered trade and service mark of the NPCA. HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

4. FIRST AID MEASURES

General Advice

If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance.

Eye Contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin Contact

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Inhalation

Move to fresh air. If symptoms persist, call a physician.
If not breathing, give artificial respiration. Call a physician immediately.

Ingestion

Clean mouth with water and afterwards drink plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician.

Notes To Physician Treat symptomatically.

Protection Of First-Aiders Use personal protective equipment.

5. FIRE-FIGHTING MEASURES

Flammable Properties	Vapors may travel considerable distance to a source of ignition and flash back. Vapors may cause flash fire.
Suitable Extinguishing Media	Foam, dry powder or water. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Protective Equipment And Precautions For Firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Specific Hazards Arising From The Chemical	Flammable. Closed containers may rupture if exposed to fire or extreme heat. Keep product and empty container away from heat and sources of ignition. Thermal decomposition can lead to release of irritating gases and vapors.
Sensitivity To Mechanical Impact	No
Sensitivity To Static Discharge	Yes
Flash Point Data	
Flash Point (°F)	80
Flash Point (°C)	27
Flash Point Method	PMCC
Flammability Limits In Air	
Upper Explosion Limit	Not available
Lower Explosion Limit	Not available

NFPA Health: 2 Flammability: 3 Instability: 0 Special: Not Applicable

NFPA Legend

- 0 - Not Hazardous
- 1 - Slightly
- 2 - Moderate
- 3 - High
- 4 - Severe

The ratings assigned are only suggested ratings, the contractor/employer has ultimate responsibilities for NFPA ratings where this system is used.

Additional information regarding the NFPA rating system is available from the National Fire Protection Agency (NFPA) at www.nfpa.org.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Remove all sources of ignition. Take precautions to prevent flashback. Ground and bond all containers and handling equipment. Take precautionary measures against static discharges. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use personal protective equipment.

Environmental Precautions	Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.
Methods For Clean-Up	Dam up. Soak up with inert absorbent material. Use a non-sparking or explosion proof means to transfer material to a sealed, appropriate container for disposal. Clean contaminated surface thoroughly.
Other Information	None known

7. HANDLING AND STORAGE

Handling	<p>Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Do not breathe vapors or spray mist. Use only in ventilated areas. Prevent vapor build-up by providing adequate ventilation during and after use.</p> <p>Take precautionary measures against static discharges. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from heat, sparks and flame. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Ignition and/or flash back may occur.</p>
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat. Keep away from open flames, hot surfaces and sources of ignition. Keep in properly labeled containers. Keep out of the reach of children.
Technical measures/Precautions	<p>Ensure adequate ventilation. Use only where airflow will keep vapors from building up in or near the work area in adjoining rooms. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing and disposal of flammable liquids.</p> <p>Dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. All equipment should be non-sparking and explosion proof. Use explosion proof electrical equipment for ventilation, lighting and material handling.</p>

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits

Chemical Name	ACGIH	Alberta	British Columbia	Ontario	Quebec
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Kaolin	2 mg/m ³ - TWA	2 mg/m ³ - TWA	2 mg/m ³ - TWA particulate matter containing no asbestos and less than 1% crystalline silica	2 mg/m ³ - TWAEV containing no asbestos and less than 1% crystalline silica	5 mg/m ³ - TWAEV
Xylene	100 ppm - TWA 150 ppm - STEL	100 ppm - TWA 434 mg/m ³ - TWA 150 ppm - STEL 651 mg/m ³ - STEL	100 ppm - TWA 150 ppm - STEL	100 ppm - TWAEV 435 mg/m ³ - TWAEV 150 ppm - STEV 650 mg/m ³ - STEV	100 ppm - TWAEV 434 mg/m ³ - TWAEV 150 ppm - STEV 651 mg/m ³ - STEV
Ethyl benzene	20 ppm - TWA	100 ppm - TWA 434 mg/m ³ - TWA 125 ppm - STEL 543 mg/m ³ - STEL	20 ppm - TWA	20 ppm - TWA	100 ppm - TWAEV 434 mg/m ³ - TWAEV 125 ppm - STEV 543 mg/m ³ - STEV
Propylene glycol monomethyl ether	100 ppm - TWA 150 ppm - STEL	100 ppm - TWA 369 mg/m ³ - TWA 150 ppm - STEL 553 mg/m ³ - STEL	50 ppm - TWA 75 ppm - STEL	100 ppm - TWAEV 365 mg/m ³ - TWAEV 150 ppm - STEV 550 mg/m ³ - STEV	100 ppm - TWAEV 369 mg/m ³ - TWAEV 150 ppm - STEV 553 mg/m ³ - STEV
Propylene glycol monomethyl ether acetate	N/E	N/E	50 ppm - TWA 75 ppm - STEL	270 mg/m ³ - TWAEV 50 ppm - TWAEV	N/E
2-Pentanone, 4-methyl-	20 ppm - TWA 75 ppm - STEL	50 ppm - TWA 205 mg/m ³ - TWA 75 ppm - STEL 307 mg/m ³ - STEL	20 ppm - TWA 75 ppm - STEL	20 ppm - TWA 75 ppm - STEL	50 ppm - TWAEV 205 mg/m ³ - TWAEV 75 ppm - STEV 307 mg/m ³ - STEV
Carbon black	3.5 mg/m ³ - TWA	3.5 mg/m ³ - TWA	3.5 mg/m ³ - TWA	3.5 mg/m ³ - TWAEV	3.5 mg/m ³ - TWAEV
Titanium dioxide	10 mg/m ³ - TWA	10 mg/m ³ - TWA	10 mg/m ³ - TWA 3 mg/m ³ - TWA	10 mg/m ³ - TWA	10 mg/m ³ - TWAEV

Legend

ACGIH - American Conference of Governmental Industrial Hygienists
 Alberta - Alberta Occupational Exposure Limits
 British Columbia - British Columbia Occupational Exposure Limits
 Ontario - Ontario Occupational Exposure Limits
 Quebec - Quebec Occupational Exposure Limits
 N/E - Not established

Engineering Measures

Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment**Eye/Face Protection**

Safety glasses with side-shields. If splashes are likely to occur, wear: Tightly fitting safety goggles.

Skin Protection

Long sleeved clothing. Protective gloves.

Respiratory Protection

Use only with adequate ventilation. In operations where exposure limits are exceeded, use a NIOSH approved respirator that has been selected by a technically qualified person for the specific work conditions. When spraying the product or applying in confined areas, wear a NIOSH approved respirator specified for paint spray or organic vapors.

Hygiene Measures

Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling. When using do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	liquid
Odor	solvent
Density (lbs/gal)	9.15 - 9.25
Specific Gravity	1.09 - 1.10
pH	Not available
Viscosity (centistokes)	Not available
Evaporation Rate	Not available
Vapor Pressure	Not available
Vapor Density	Not available
Wt. % Solids	60 - 70
Vol. % Solids	55 - 65
Wt. % Volatiles	30 - 40
Vol. % Volatiles	35 - 45
VOC Regulatory Limit (g/L)	<340
Boiling Point (°F)	237
Boiling Point (°C)	114
Freezing Point (°F)	Not available
Freezing Point (°C)	Not available
Flash Point (°F)	80
Flash Point (°C)	27
Flash Point Method	PMCC
Upper Explosion Limit	Not available
Lower Explosion Limit	Not available

10. STABILITY AND REACTIVITY

Chemical Stability

Stable under normal conditions. Hazardous polymerisation does not occur.

Conditions To Avoid

Keep away from open flames, hot surfaces, static electricity and sources of ignition. Sparks. Elevated temperature.

Incompatible Materials

Incompatible with strong acids and bases and strong oxidizing agents.

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating gases and vapors.

Possibility Of Hazardous Reactions

None under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information

Repeated or prolonged exposure to organic solvents may lead to permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling vapors may be harmful or fatal.

Component

Kaolin

LD50 Oral: > 5000 mg/kg (Rat)

Xylene

LD50 Oral: 4300 mg/kg (Rat)

LD50 Dermal: > 1700 mg/kg (Rabbit)

LC50 Inhalation (Vapor): 5000 ppm (Rat, 4 hr.)

Ethyl benzene

LD50 Oral: 3500 mg/kg (Rat)

LD50 Dermal: > 5000 mg/kg (Rabbit)

LC50 Inhalation (Vapor): 55000 mg/m³ (Rat, 2 hr.)

Propylene glycol monomethyl ether

LD50 Oral: 6,600 mg/kg (Rat)

LD50 Dermal: 13,000 mg/kg (Rabbit)

LC50 Inhalation (Vapor): 10,000 ppm (Rat)

Propylene glycol monomethyl ether acetate

LD50 Oral: 8532 mg/kg (Rat)

LD50 Dermal: > 5000 mg/kg (Rabbit)

LC50 Inhalation (Vapor): > 4345 ppm

2-Pentanone, 4-methyl-

LD50 Oral: 2080-4600 mg/kg (Rat)

LC50 Inhalation (Vapor): 100000 mg/m³

Carbon black

LD50 Oral: > 15400 mg/kg (Rat)

LD50 Dermal: > 3000 mg/kg (Rabbit)

Phenol, 2,4,6-tris[(dimethylamino)methyl]-

LD50 Oral: 1200 mg/kg (Rat)

LD50 Dermal: 1280 mg/kg (Rat)

Titanium dioxide

LD50 Oral: > 10000 mg/kg (Rat)

LD50 Dermal: > 10000 mg/m³ (Rabbit)

LC50 Inhalation (Dust): > 6.82 mg/L (Rat, 4 hr.)

Chronic Toxicity

Carcinogenicity

The information below indicates whether each agency has listed any ingredient as a carcinogen:.

Chemical Name	ACGIH	IARC	NTP	OSHA Carcinogen

Ethyl benzene	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans	2B - Possible Human Carcinogen		Listed
2-Pentanone, 4-methyl-	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans	2B - Possible Human Carcinogen		Listed
Carbon black		2B - Possible Human Carcinogen		Listed
Titanium dioxide		2B - Possible Human Carcinogen		Listed

• Although IARC has classified titanium dioxide as possibly carcinogenic to humans (2B), their summary concludes: "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as paint."

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

IARC - International Agency for Research on Cancer

NTP - National Toxicity Program

OSHA - Occupational Safety & Health Administration

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects

Product Information

Acute Toxicity to Fish

No information available

Acute Toxicity to Aquatic Invertebrates

No information available

Acute Toxicity to Aquatic Plants

No information available

Component

Acute Toxicity to Fish

Xylene

LC50: 13.5 mg/L (Rainbow Trout - 96 hr.)

Ethyl benzene

LC50: 12.1 mg/L (Fathead Minnow - 96 hr.)

Titanium dioxide

LC50: > 1000 mg/L (Fathead Minnow - 96 hr.)

Acute Toxicity to Aquatic InvertebratesEthyl benzene

EC50: 1.8 mg/L (Daphnia magna - 48 hr.)

Acute Toxicity to Aquatic PlantsEthyl benzene

EC50: 4.6 mg/L (Green algae (Scenedesmus subspicatus), 72 hrs.)

13. DISPOSAL CONSIDERATIONS**Waste Disposal Method**

Dispose of in accordance with federal, state, provincial, and local regulations. Local requirements may vary, consult your sanitation department or state-designated environmental protection agency for more disposal options.

Empty Container Warning

Emptied containers may retain product residue. Follow label warnings even after container is emptied. Residual vapors may explode on ignition.

14. TRANSPORT INFORMATION**TDG**

Proper Shipping Name	Paint
Hazard Class	3
UN-No	UN1263
Packing Group	III
Description	UN1263, Paint, 3, III

ICAO / IATA

Contact the preparer for further information.

IMDG / IMO

Contact the preparer for further information.

15. REGULATORY INFORMATION**International Inventories****TSCA: United States**

Yes - All components are listed or exempt.

DSL: Canada

Yes - All components are listed or exempt.

National Pollutant Release Inventory (NPRI)**NPRI Parts 1- 4**

This product contains the following Parts 1-4 NPRI chemicals:

<u>Chemical Name</u>	<u>CAS-No</u>	<u>Weight % (max)</u>	<u>NPRI Parts 1- 4</u>
Xylene	1330-20-7	10 - 30%	Listed
Ethyl benzene	100-41-4	1 - 5%	Listed
Propylene glycol monomethyl ether	107-98-2	1 - 5%	Listed
Propylene glycol monomethyl ether acetate	108-65-6	1 - 5%	Listed
2-Pentanone, 4-methyl-	108-10-1	1 - 5%	Listed

NPRI Part 5

This product contains the following NPRI Part 5 Chemicals:

<u>Chemical Name</u>	<u>CAS-No</u>	<u>Weight % (max)</u>	<u>NPRI Part 5</u>
Xylene	1330-20-7	10 - 30%	Listed
Propylene glycol monomethyl ether acetate	108-65-6	1 - 5%	Listed
2-Pentanone, 4-methyl-	108-10-1	1 - 5%	Listed

WHMIS Regulatory Status

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

WHMIS Hazard Class

B2 Flammable liquid
D2A Very toxic materials

**16. OTHER INFORMATION**

WARNING! If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by logging onto Health Canada @ <http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/prod/paint-peinture-eng.php>.

Prepared By Product Stewardship Department
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Revision Date: 29-Jun-2015
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Disclaimer

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IG-4020F

End of MSDS