

Product Names

XT1 Premix for:
XT1, XT1 Trowel Grade

Description

All XT1 premixes are:
Asphalt/resin portion of 2-component urethane coatings.

Emergency Telephone

Kingfield (612) 225-5167

Prepared by:

Kingfield Technical Department
11/05/2015

CAUTION!

*Flammable Liquid —
Keep out of reach of children.*

*May cause eye and skin irritation.
Prolonged or repeated contact with
skin can be harmful.*

HAZARDOUS CONSTITUENTS

Component	CAS#	ACGIH		OSHA		% Range	Primary Hazard
		TWA	STEL	TWA	STEL		
Petroleum asphalt	8052-42-4	5 mg/m ³ (Note1)	n/a	n/a		20 to 80%	n/a
Amine compounds		100 ppm	n/a	n/a		up to 10%	Irritant Flammable
Aliphatic hydrocarbon	8052-41-3	100 ppm	125 ppm	100 ppm	n/a	up to 30%	liquid Flammable
Aromatic Petroleum Distillates	64742-95-6			100 ppm	125 ppm	up to 2%	liquid

¹ applies to fumes from hot asphalt and is not likely to present a hazard when XT1 Premix is used as directed.

HEALTH EFFECTS

EMERGENCY & FIRST AID PROCEDURES

SPECIAL PROTECTION

Eyes

May cause eye irritation.

Flush eyes immediately with fresh water for at least 15 minutes while holding the eyelids open. If irritation persists, see a doctor.

Wear chemical safety goggles.

Skin

May cause skin irritation. Prolonged or repeated exposure may dry the skin. LD₅₀ (rabbit)>5 g/kg.

Remove heavily contaminated clothing and wash skin thoroughly with soap and water. DO NOT use solvents or thinners to remove materials from skin. Asphalt can be removed with vegetable oil or mineral oil.

Skin contact can be minimized by wearing protective clothing and solvent resistant gloves.

Inhalation

Breathing solvent vapor can cause central nervous system effects including dizziness, weakness, fatigue, and headache and possible unconsciousness and even death. LC50>2000 ppm.

Move the person to fresh air and apply oxygen if breathing is difficult. If breathing has stopped, apply artificial respiration. Call a doctor.

Use in well ventilated areas only. Wear an OSHA approved type C air supplied respirator if ventilation is inadequate to keep solvent inhalation vapors below the TLV.

Ingestion

This material contains solvents. An aspiration hazard may exist which could cause chemical pneumonitis which is sometimes fatal. Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. LD50 (rat)>5 g/kg.

Do not induce vomiting. Get medical attention. If medical advice cannot be obtained, then take the person and product container to the nearest medical emergency treatment center or hospital.

Avoid airborne mists which can be inhaled or swallowed. Use protective mask, if necessary.

FIRE PROTECTION

Flammable Liquid: Solvents contained in this product evaporate and form vapor (fumes) which can catch fire and burn with explosive violence. Invisible vapor spreads easily and can be set on fire by many sources such as cigarettes, pilot lights, welding equipment, electrical motors and switches, and static discharge. Fire hazard is greater as liquid temperature rises.

Flash Point: 101°F

Autoignition Temp.: >500°F

Flammability Limits: 1% lower limit, 6% upper limit

Extinguishing Media: CO₂, Dry Chemical, Foam, Water Fog, Halon

Special Fire Fighting Procedures: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. See Hazardous Decomposition Products. Read the entire SDS.

NFPA Hazard Rating: Health 1; Flammability 2; Reactivity 0; Special 0, Class II

Transportation Hazard: Coating Solution, Class 3, UN1139, PG III. Note: Under regulations at 49CFR 173.150 this material may be reclassified as a combustible liquid for U.S. transport only. This provision only applies to transport via highway and does not apply to transport by vessel or aircraft.

PHYSICAL PROPERTIES

Solubility: Miscible in all proportions with most light halogenated hydrocarbon solvents; soluble to less than 300 ppm in water.

Appearance (Color, Odor, etc.): Black liquid with mineral spirits odor

Boiling Point: ca 310°F (155°C)

Melting Point: n/a

Specific Gravity: 0.9@ 20/20°C

Vapor Pressure: Approximately 3mm Hg @ 68°F (20°C)

Vapor Density (Air=1): Approximately 4.9

Percent Volatile (Volume): less than 15%

ENVIRONMENTAL PROTECTION

Environmental Impact: This material, if not activated with XT1 Activator, may be toxic to aquatic organisms and should be kept out of sewage and drainage systems and all bodies of water.

Precautions if Material is Released or Spilled: Eliminate all open flame in vicinity of spill or released vapor. Clean up small spills using appropriate techniques such as absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Follow prescribed procedures for reporting and responding to larger releases.

Waste Disposal Methods: Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local environmental or health authorities for approved disposal of this material.

Regulatory Status: This product does not contain constituents known to be a carcinogen, mutagen, teratogen or reproductive toxin. This product contains certain aromatic solvents subject to the reporting requirements of section 313 of SARA Title III. Spills in excess of 10,000 lb. must be reported to the appropriate federal, state, and local authorities.

REACTIVITY DATA

Stability (Thermal, Light, etc.): Stable

Incompatibility (Materials to Avoid): May react with strong oxidizing materials.

Hazardous Decomposition Products: Incomplete combustion can produce carbon monoxide. Normal combustion forms carbon dioxide and water vapor and may produce oxides of nitrogen.

Hazardous Polymerization: Will not occur.

n/a = Not Applicable

NDA = No Data Available

ADDITIONAL HEALTH DATA

XT1 Premix is used with XT1 Activator to form an elastomeric coating for waterproofing and corrosion protection. Consult the SDS for XT1 Activator. Avoid inhalation of airborne activated XT1 mixture which contains isocyanates and may result in sensitization and allergic response in some individuals.

No association has been established between industrial exposure to petroleum asphalt and cancer in humans. The International Agency for Research on Cancer has determined there is limited evidence of carcinogenicity for undiluted steam-refined asphalts in experimental animals and insufficient evidence of carcinogenicity for undiluted steam-refined asphalts in humans. These asphalt sources are not constituents of XT1 Premix

HANDLING & STORAGE

READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

DO NOT USE OR STORE near flame, sparks or hot surfaces.

USE ONLY IN WELL VENTILATED AREA. Keep container closed when not in use.

DO NOT weld, heat or drill container. Emptied container still contains hazardous or explosive vapor or liquid.

Store product in accordance with local regulations. Do not exceed indoor limits for storage of Class II liquids. Storage temperature: 20°F to 110°F (Do not warm pails above flash point of 101°F)

Product Names *XT1 Activator*
including:
XT1 Activator

Description
Activator for XT1 Premix
which is based upon modified
Diphenylmethane-4,4' -diisocyanate

Emergency Telephone
Kingfield (612) 225-5167

Prepared by:
Kingfield Technical Department
11/05/2015

CAUTION!

*Harmful if Inhaled.
Respiratory Sensitizer.
Toxic Fumes Released
During Fires.*

*May cause eye and skin irritation.
May cause allergic skin
and respiratory reactions.*

HAZARDOUS CONSTITUENTS

Component	CAS#	ACGIH		OSHA		% Range	Primary Hazard
		TWA	STEL	TWA	STEL		
Diphenylmethane-4,4'-diisocyanate (MDI)	26447-40-5	0.005 ppm		0.02 ppm		up to 80%	Sensitizer
Modified MDI	39310-05-9	n/a		n/a		up to 30%	n/a
Triethyl phosphate	00078-40-0	n/a		n/a		<2%	Eye irritant

EMERGENCY & FIRST AID PROCEDURES

HEALTH EFFECTS

SPECIAL PROTECTION

<p>Eyes May cause eye irritation. May cause slight transient corneal injury.</p>	<p>Flush eyes immediately with fresh water for at least 15 minutes continuously while holding the eyelids open. If irritation persists, see a doctor.</p>	<p>Wear chemical safety goggles. If a respirator is required, use full face mask to protect eyes from vapor or mist.</p>
<p>Skin Prolonged or repeated exposure may cause skin irritation or allergic skin and respiratory reactions. LD₅₀ (rabbit) > 2 g/kg</p>	<p>Wash thoroughly with soap and water.</p>	<p>Skin contact may be minimized by wearing protective clothing and impervious gloves. Launder clothes before re-use.</p>
<p>Inhalation Vapors and aerosols can irritate respiratory passages. Severe overexposure may lead to pulmonary edema. MDI can induce respiratory sensitization with asthma-like symptoms include chronic cough, tightness of chest with difficulty in breathing. Symptoms may be immediate or delayed several hours after exposure. Chronic overexposures may result in permanent decreases in lung function.</p>	<p>Move the person to fresh air and apply oxygen if breathing is difficult. If breathing has stopped, apply artificial respiration. Call a physician or transport to a medical facility. Note to physician: No specific antidote. Respiratory symptoms may be delayed including pulmonary edema. May cause respiratory sensitization.</p>	<p>Use in well ventilated areas only. Wear an OSHA approved type C air supplied respirator if ventilation is inadequate to keep vapors and mist below the TLV.</p>
<p>Ingestion Single dose toxicity is extremely low and not likely to cause injury. LD₅₀ (rats) > 5 g/kg.</p>	<p>No adverse effects anticipated by this route of exposure incidental to proper industrial handling.</p>	<p>Avoid airborne mists which can be inhaled or swallowed. Use protective mask if necessary. Provide general ventilation or exhaust to control airborne levels below exposure guidelines.</p>

FIRE PROTECTION

Flash Point: 425°F (218°C)

Autoignition Temp.: No data available

Flammability Limits: No data available

Extinguishing Media: CO₂, Dry Chemical, Foam. Water should be used in very large quantities.

Special Fire Fighting Procedures: Use self contained breathing apparatus with full face piece and protective clothing to protect against nitrogen oxide fumes and isocyanate vapors. Evacuate down-wind personnel. Contain run-off.

Fire and Explosion Hazard: Water contamination will produce carbon dioxide. Do not reseal contaminated containers as pressure buildup may rupture them.

NFPA Hazard Rating: Health 3; Flammability 1; Reactivity 1; Special 0, Class IIIB

DOT Hazard: Not regulated

PHYSICAL PROPERTIES

Solubility: Miscible in all proportions with many hydrocarbon solvents; reacts with water liberating CO₂.

Appearance (Color, Odor, etc.): Pale amber liquid

Boiling Point: 597°F (decomposes)

Melting Point: Approximately 160°F

Specific Gravity: 1.2

Vapor Pressure: 0.0003 mm Hg @ 77°F (25°C)

Vapor Density (Air=1): Approximately 11.4

Percent Volatile (Volume): n/a

ENVIRONMENTAL PROTECTION

Precautions if Material is Released or Spilled: For major spills, avoid contact. Barricade area. Call Kingfield at (612) 225-5167. For minor spills, wear skin, eye, and respiratory protection during cleanup. Absorb spilled liquid with sawdust or other absorbent and shovel into open top containers. DO NOT SEAL. Remove containers to well ventilated outside area and neutralize using dilute household ammonia or sodium carbonate solution. Let stand for 48 hours, allowing carbon dioxide to evolve, leaving insoluble and non-hazardous polyurea.

Environmental Impact: Based on information for MDI and polymeric MDI, material is practically non-toxic to aquatic organisms on an acute basis (LC50 greater than 100 mg/L in most sensitive species). Material reacts with water, forming insoluble polyurea which is stable.

Cleanup Procedure: Decontaminate spill areas using dilute household ammonia and detergent. Allow cleaning solution to contact spill area for at least 10 minutes. Empty containers can be neutralized by adding a small amount of water and allowing to stand for 48 hours. The liquid or solid residuals of the above cleanup procedure are non hazardous in accordance with RCRA, 40CFR261 and may be disposed of in accordance with local regulations.

Regulatory Status: MDI is subject to the reporting requirement of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (40CFR372). Spills having the potential to affect people offsite must be reported to the appropriate federal, state and local authorities.

SARA 313: Subject to reporting requirements

CERCLA: RQ - 5000 lbs.

SARA 311 & 312: MDI is an immediate health hazard, a delayed health hazard, and a reactive hazard.

TSCA: All ingredients are on the TSCA inventory or are not required to be listed.

WHMIS: D2A respiratory tract sensitizer; D2B eye or skin irritant; D2B skin sensitizer

CPR: MDI CAS #000101-68-8 63-76%

REACTIVITY DATA

Stability (Thermal, Light, etc.): Stable when properly stored.

Incompatibility (Materials to Avoid): May react with strong oxidizing materials. Avoid contamination with water, acid or strongly alkaline materials, alcohols, metals, soaps and detergents.

Hazardous Decomposition Products: Incomplete combustion can produce isocyanate vapors and mist, and carbon monoxide. Normal combustion may produce oxides of nitrogen and hydrogen cyanide.

Hazardous Polymerization: May occur with strong bases or at temperatures over 320°F (160°C). Temperatures over 99°C (120°F) accelerate the reaction with water.

ADDITIONAL HEALTH DATA

XT1 Activator is an isocyanate intended for use with XT1 Premix. Consult the SDS for XT1 Premix. Avoid inhalation of airborne activated XT1 mixture which contains isocyanate and may result in sensitization and allergic response in some individuals.

Because of the low vapor pressure of this product, ventilation is usually sufficient to keep vapors below the TLV for isocyanates at ambient temperatures. If the material is heated or sprayed, airborne concentrations of vapor and mist may be excessive and use of an approved MSHA/NIOSH positive pressure supplied air respirator is strongly advised.

Over exposure to XT1 Activator may cause an allergic respiratory sensitization. Sensitized individuals should not be further exposed to this product. Individuals with existing respiratory disease such as chronic bronchitis or emphysema or asthma should not be exposed to isocyanate vapors.

MUTAGENICITY: Mutagenicity data on MDI are inconclusive. MDI was weakly positive in some cases in vitro (test tube) studies; other in vitro studies were negative. A mutagenicity study in animals was negative. For the minor component (s) triethyl phosphate: in vitro mutagenicity studies were negative in some cases and positive in other cases. Animal mutagenicity studies were negative in some cases and positive in other cases.

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated excessive exposures to MDI/polymeric MDI aerosols. **CANCER INFORMATION:** Lung tumors have been observed in laboratory animals exposed to aerosol droplets of MDI/polymeric MDI (6 mg/m³) for their lifetime. Tumors occurred concurrently with respiratory irritation and lung injury. Current exposure guidelines are expected to protect against these effects reported for MDI. **TERATOLOGY (BIRTH DEFECTS):** In laboratory animals, MDI/polymeric MDI did not produce birth defects; other fetal effects occurred only at high doses which were toxic to the mother.

HANDLING & STORAGE

READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

USE ONLY IN WELL VENTILATED AREA. DO NOT EAT, DRINK, OR SMOKE IN WORKING AREA.

CAUTION! Water contamination will cause dangerous pressure. Keep container closed. Do not reseal contaminated containers. **Store indoors at 70° - 95°F in original, unopened containers. Protect from contamination with moisture.**

This product is a Class IIIB liquid and is not subject to indoor storage limitations per the Uniform Fire Code. Consult your local officials for exceptions.