

# MATERIAL SAFETY DATA SHEET

## PRODUCT IDENTITY: FAST CURE CATALYST (B)

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### SECTION 1 - Preparation/Product Information

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Manufactured and Supplied By:                    Emergency Telephone No: (613) 996-6666  
Niagara Protective Coatings                    Date Prepared: July 1, 2015  
7071 Oakwood Ave.    CANUTEC  
Niagara Falls, Ontario L2E 6S5                    Product Use: curing agent

T.D.G. Classification: Amines, Liquid, Corrosive, N.O.S. (Amine adduct)  
Class 8, UN 2735, PG II

WHMIS: Class E, Corrosive material, Class D, Division I, Subdivision B Toxic  
Material, Class D, Division 2, Subdivision B

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### Section 2 - Hazardous Ingredients/Identity Information

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HAZARDOUS COMPONENTS: CHEMICAL IDENTITY	EXPOSURE LIMITS: TLV	TOXICITY: LD50/LC40	AMOUNT: %
Pentaethylenehexamine	4067-16-7	not available	5-10
Nonyl Phenol	25154-52-3	1231 mg/kg/mouse oral, 2140 mg/kg/rabbit dermal	20-30
N-aminoethylpiperazine	140-31-8	2140 mg/kg/oral rat 880 mg/kg/rat/dermal	10-20

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### SECTION 3 - Physical/Chemical Characteristics

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Boiling Point: 227.78 C    Specific Gravity: 1.03  
Vapour Pressure (mmhg): 62.30 mm hg @ 21 C

Freezing Point:N/Av.

ph: Alkaline

Evaporation Rate: n/a

Solubility In Water (20 C): Soluble

% VOC: n/a

Physical State: Liquid

Odour Appearance: Straw Yellow-amber

Vapour Density (air=1): n/a

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#### SECTION 4 - Fire and Explosion Hazard Data

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Flash Point (deg C) and Method: 120 C

Flammable Limits/% Volume in Air: LEL: n/a

UEL: n/a

Autoignition Temperature (deg C): n/a

Extinguishing Media: In case of large fire use; water spray or alcohol foam.  
In case of small fire use: carbon dioxide, dry chemical, dry sand or limestone.

Special Fire Fighting Procedures: A face shield should be worn. Wear complete body protective butyl rubber clothing. Wear self-contained breathing apparatus. Personnel in vicinity and downwind should be evacuated. Avoid skin contact. Retain expended liquids from fire fighting for later disposal.

Hazardous Combustion Products: May generate toxic or irritating combustion products. Ammonia. Oxides of Nitrogen. Oxides of carbon. (CO, CO2)

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#### SECTION 5 - Reactivity Data

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Stable: x

Incompatibility (Materials to Avoid): Oxidizing Agents (ie perchlorates, nitrates, etc.) Mineral acids (i.e. sulphuric, Phosphoric, etc.). Materials reactive with hydroxyl compounds. Nitrates. Nitrating agents. Reactive metals (sodium, calcium, zinc etc.). Sodium or calcium hypochlorite.

Conditions of Reactivity/Instability: Hazardous polymerization will not occur. Caution! n-nitrosamines, many of which are known to be powerful carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites, or atmospheres with high concentrations of nitrous oxide.

Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Reaction with peroxides may result in violent decomposition of peroxide possible creating an explosion. A reaction followed by a large heat release occurs when the product is mixed with acids. Heat generated may be sufficient to cause boiling, creating a splashing or splattering hazard.

Hazardous Products of decomposition: Irritating and toxic fumes at elevated temperatures. Nitric Acid. Nitrosamines. Ammonia when heated. Oxides of nitrogen. Aldehydes. Nitrogen oxides can react with water vapours to form corrosive nitric acid. Oxides of carbon (CO, CO2).

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## SECTION 6 -

### Health Hazard Data

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#### Routes Of Exposure:

Skin Contact: may cause dryness, defatting, itching and/or rash.

Skin absorption: Readily absorbed through skin. May cause malaise, discomfort, injury and death unless treated promptly.

Eye Contact: Burns of the eye may cause blindness. Product vapour in low concentrations can cause lacrimation, conjunctivitis and corneal edema when absorbed into the tissue of the eye from the atmosphere. Corneal edema may give rise to a perception of "blue haze" or "fog" around lights. The effect is transient and has no know residual effect.

Inhalation, Acute: Severe respiratory tract irritant. May severely damage contacted tissue and produce scarring.

Inhalation, Chronic: Refer to effects of chronic exposure.

Ingestion: Though not anticipated to occur during routine occupational use situations, ingestion of this product can cause severe pain, burning of the mouth and throat, vomiting and diarrhea.

Effects of Acute Exposure: Contact of undiluted product with the eyes or skin quickly causes severe irritation and pain and may cause burns, necrosis and permanent injury.

Effects of Chronic Exposure: Effects from inhalation of vapours may be delayed. Repeated and/or prolonged exposure to low concentrations of vapour may cause: sore throat and eye irritation, which are transient. Adverse respiratory effects (tightness of chest, cough, shortness of breath). Adverse eye effects (such as conjunctivitis or corneal damage). Adverse skin effects (such as defatting, rash, irritation or corrosion.) Allergic

reaction/sensitization may occur during repeated or prolonged contact with the skin.

Target Organs: Eye. Respirator System. Skin.

LD 50 of material, species and Route: > 880 mg/kg (estimate)

LC 50 of material, species and Route: refer to hazardous ingredients section

Exposure limit of material: Refer to hazardous ingredients section

Medical conditions generally aggravated by exposure: Eye disease. Asthma.

Chronic respiratory disease (e.g.bronchitis, emphysema). Skin Disorders.

Allergies.

Irritation caused by material: Corrosive

Sensitizing Capability of Material: May cause skin sensitization.

Carcinogenicity of Material: This product contains no carcinogens in concentrations of 0.1% or greater.

Reproductive Effects: none known

Synergistic Materials: none known

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## SECTION 7 - First Aid Measures

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### EMERGENCY AND FIRST AID PROCEDURES:

Inhalation: Remove to fresh air. If breathing is difficult give oxygen. Apply artificial respiration if breathing has ceased. Contact a physician. Prevent aspiration of vomit. Turn victim's head to the side.

Ingestion: Do not induce vomiting. Give large amounts of water or milk if available and transport to medical facility.

Eyes: Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek medical attention.

Skin: Remove product and immediately flush with water for at least 15 minutes remove contaminated clothing and shoes. Wash before reuse. Call a physician. Except in the most minor, superficial and localized burns, cover the affected area with a sterile dressing or clean sheeting and transport for medical care. Do not apply greases or ointments. Control shock if present. Discard contaminated leather articles.

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## SECTION 8 - Preventative Measures

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Gloves/type: Impervious gloves. Polyvinyl chloride gloves. Cuffed butyl rubber gloves. Neoprene rubber gloves. Nitrile rubber gloves.

Respiratory/type: Not required under normal conditions. A NIOSH approved organic vapour respirator is recommended under emergency conditions.

Eye/Type: Full Face shield with goggles underneath.

Footwear/type: Rubber boots.

Clothing/Type Clothing/Type: Impervious protective clothing. Full rubber suit. Butyl or latex protective clothes. Slicker suit.

Other/Type: Emergency shower should be in close proximity. Eye wash facility should be in close proximity.

Engineering Controls: General ventilation; local exhaust ventilation as necessary to control any air contaminants, to within their TLV's, in the use of this product.

Clean Up Procedures, Leak/Spill: Stop the leak, if possible. Ventilate. Eliminate all sources of ignition. Reduce vapour spreading with a water spray. Dike area to prevent spreading. If recovery is not feasible, admix with dry soil, sand or non-reactive absorbent. Transfer to containers by suction, preparatory for later disposal. Flush area with water spray. For large spills, recover using a vacuum truck. Open enclosed spaces to outside atmosphere. Clean up personnel must be equipped with self-contained breathing apparatus and butyl rubber protective clothing.

Waste disposal, method and equipment: In accordance with municipal, provincial and federal regulations. Dispose in a permitted waste management facility.

Handling procedures and equipment: Maintain good personal hygiene. Wash thoroughly after handling and before eating, drinking or using tobacco products. Do not use sodium nitrite or other nitrosating agents in formulations containing this product. Cancer-causing nitrosamines could be formed. Change work clothing daily before leaving the workplace. Launder or discard contaminated clothing. Avoid smoking, drinking or eating in use. Handle away from all sources of ignition. Avoid smoking. Avoid contact with eyes, skin and clothing. Avoid breathing vapours or mists.

Storage needs: Store away from oxidizing materials. Store away from sources of ignition. Keep container closed when not in use. Store in a cool and dry place. Keep away from acids. Store in steel containers, preferably located outdoors, above ground, and surrounded by dikes to contain spills or leaks. Do not store in iron or other reactive metal containers. Store in a well ventilated area.

Special Shipping Instructions: Shipments of this product must be in compliance with all applicable Federal, Provincial and International transportation regulations.

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