MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

PRODUCT NAME: ProBuild Fast Hardener

CHEMICAL NAME: Aliphatic Amine Blend

MANUFACTURER: CASS POLYMERS OF MICHIGAN, INC.
815 WEST SHEPHERD STREET
CHARLOTTE MI 48813 USA
INFORMATION PHONE: (248) 588-2270
EMERGENCY PHONE: (703) 527-3887(Call Collect)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Materials Information System (United States)

Health	3
Flammability	1
Physical Hazard	0

Hazard Codes: *=Chronic Hazard 0=Minimal Hazard, 1=Slight Hazard, 2=Moderate Hazard, 3=Serious Hazard, 4=Severe Hazard

Material Composition

Component	CAS.NO	EINECS/ELINCS No.	Percent
Polyoxypropylenediamine	9046-10-0	Not Available	10% - 20%
Bisphenol A	80-05-7	201-245-8	1% -5%
Diethylenetriamine (DETA)	111-40-0	203-865-4	1% - 5%
Trimethylhexamethylenediamine (TMD)	25620-58-0	247-134-8	5% - 15%
Paratertiarybutylphenol	95-54-4	Not Available	10% - 20%
Benzene-1,3-dimethaneamine (MXDA)	1477-55-0	216-032-5	10% - 20%
Aminoethylpiperazine	140-31-8	205-411-0	20% - 25%
Polyglycoldiamine	929-59-9	Not Available	1% - 10%
Nonylphenol	104-40-5	203-199-4	1% - 5%

Hazardous Materials are listed if present in concentrations of 1.0% or higher. Materials posing a possible Chronic Health Risk are listed at concentrations of 0.1% or higher. Materials listed in section 2 are not necessarily hazardous. See section 8-Exposure Controls/Personal Protection, and section 11-Toxicological Information for complete hazard/exposure limit information

3. HAZARDS IDENTIFICATION

****Emergency Overview****

Do not get in eyes, on skin or on clothing. Do not breathe vapors, dust or mist. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Avoid contact of large amounts of spilled material. Keep runoff out of soil and surface waterways.

EC Classification(s): C-Corrosive, N-Harmful to the Environment

Risk Phrases:
R20/21: Harmful in contact with skin and if swallowed
R34: Causes Burns.
R43: May cause sensitization by skin contact
R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

(See Section 15-REGULATORY INFORMATION for complete risk phrases.)

Potential Acute Health Effects

Eyes

Very hazardous in case of eye contact (irritant, corrosive). Inflammation of the eye is characterized by redness, watering and itching. Exposure of the eyes to amine vapors may produce a temporary and reversible hazing or blurring of vision. Symptoms disappear soon after exposure is terminated.

Respiratory

Vapors produced though handling of this material in it's uncured state may cause irritation of the eyes, nose, throat or other mucous membranes. Maintain adequate local exhaust or wear adequate personal protective equipment. Processing of cured materials may produce harmful and/or irritating dusts. Use of local exhaust and or dust/vapor respirators is recommended.

Skin

Hazardous in case of skin contact (corrosive). Skin contact may produce burns.

Potential Chronic Health Effects

Respiratory

Repeated inhalation of vapors may cause lung damage. Provide appropriate ventilation to maintain exposures below occupational limits. Use of a dust mask or other filtering respirator is recommended where local ventilation is not adequate. See section 8-EXPOSURE CONTROLS/PERSONAL PROTECTION for exposure limits and recommended protective equipment. See section 11-TOXICOLOGICAL INFORMATION for further information.

Skin

Repeated skin contact may cause a persistent irritation or dermatitis. Repeated or prolonged exposure may aggravate existing dermatitis (skin contact). Overexposure to vapor, dust, or mist may aggravate existing respiratory conditions such as asthma, bronchitis, and inflammatory or fibrotic respiratory disease.

4. FIRST AID MEASURES

Never give fluids or induce vomiting if patient is unconscious or is having convulsions.

Inhalation

Move effected persons to fresh air; if effects occur, consult a physician.

Skin Contact

Immediate, continued and thorough washing in flowing water for at least 30 minutes is imperative while removing contaminated clothing. Prompt medical consultation is essential. Wash clothing before reuse. Destroy contaminated leather items.

Eye Contact

Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist.

Ingestion

Do not induce vomiting. Give one glass (ca. 2.5 dL) of water or milk if available and transport to medical facility. Do not give anything by mouth to an unconscious person.

Note to Physician

Due to irritant properties, swallowing may result in burns/ulceration of mouth, stomach and lower gastrointestinal tract with subsequent stricture. Aspiration of vomitus may cause lung injury. Suggest endotracheal/esophageal control if lavage is done. If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE FIGHTING PRECAUTIONS

Extinguishing Media

Water fog or fine spray. Carbon dioxide. Alcohol resistant foam. Dry chemical fire extinguishers.

Hazardous Combustion Products

Combustion products may include and are not limited to: Nitrogen oxides. Carbon dioxide. Carbon monoxide.

Protection of Firefighters

Wear positive-pressure self-contained breathing apparatus and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves.)

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Wear adequate personal protective equipment, see Section 8, EXPOSURE CONTROLS/PERSONAL PROTECTION.

Methods of Cleaning Up

Large spills: Contain with dike. Pump into suitable and properly labeled containers.

Small spills: Dilute with water and recover or use non-combustible absorbent material/sand and shovel into appropriate containers.

Neutralize residues with a dilute solution of acetic acid.

7. HANDLING AND STORAGE

Handling

Keep container dry. Do not ingest. Do not breathe gas/fumes/dust/spray/dust. If ingested, seek medical advice immediately and show the container, label or this document. Avoid contact with skin and eyes.

Storage

Store under nitrogen blanket for maximum shelf life. Product should not come in contact with copper or copper-bearing alloys.

Storage Temperature and Shelf Life

Store between 10ºC and 27ºC for maximum shelf life

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Hazardous Component Control Parameters –

Component	CAS. No.	EINECS	Percent	Exposure Limits	Source

1,3-Benzenedimethaneamine	1477-55-0	216-032-5	10% - 20%	0.1 mg/m3	ACGIH

-No Further Data Available-

Engineering Controls

Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for operations involving machining of dry or cured material.

Personal Protective Equipment

Respiratory Protection

For use of this material in it's uncured state, no respiratory protection should be needed with use of adequate local exhaust, however, if handling at elevated temperatures or without sufficient ventilation, use of an approved air-purifying or supplied air respirator is recommended. Use a CE approved air-purifying respirator with cartridge/filter for: Organic vapors, type A (boiling point >65 deg.C).

Special Respiratory Concerns

Take care when grinding, sanding, or machining cured material as these operations may liberate harmful/irritating dust. Provide appropriate ventilation to maintain exposures below occupational limits. Use of a dust mask or other filtering respirator is recommended where local ventilation is not adequate

Skin Protection

Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, gloves, boots, apron, or full body suit will depend on operation. Safety shower should be located in immediate work area. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly.

Hand protection

Use chemical resistant gloves classified under standard EN 374: Protective gloves against chemicals and microorganisms.
Examples of preferred glove barrier materials include:
-Chlorinated polyethylene.
-Polyethylene.
-Ethyl vinyl alcohol laminate ("EVAL").

Examples of acceptable glove barrier materials include:
-Butyl rubber.
-Natural rubber ("latex").
-Neoprene.
-Nitrile/butadiene rubber ("Nitrile" or "NBR").
-Polyvinyl alcohol ("PVA").
-Polyvinyl chloride ("PVC" or "vinyl").
-Viton.

When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended.

NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all requisite workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), as well as the instructions/specifications provided by the glove supplier.

- Eye/Face Protection

Eye wash fountain should be located in immediate work area. Use chemical goggles. A full-face shield and vapor respirator is recommended for operations involving spraying or other operations placing this material under pressurized conditions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance :	Mobile Liquid
Color:	Amber
Odor :	Amine Odor
Specific gravity :	0.94 – 0.96
Vapor pressure :	Not Determined
Boiling point/range :	Not Determined
Freezing point/range :	Not Determined
Water solubility :	Liquid Components are Readily Soluble in Water
pH :	Basic
Flash point :	121ºC

Auto-ignition temp. :	>300 deg.C
Flammability-LFL :	Not Determined
Flammability-UFL :	Not Determined
% volatile:	0 g/L (0% by mass)

10. STABILITY AND REACTIVITY

Chemical Stability

Stable under normal handling and storage conditions, see Section 7,Handling and Storage.

Materials to Avoid

Acrylates. Aldehydes. Ketones. Halogenated organic compounds. Oxidising agents. Acids. Copper and its alloys (Brass, Bronze, etc.) Mixture with these materials will result in a temperature and/or pressure increase.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

This finished product has not been tested to determine individual toxicological/ecological limits. Individual components of this mixture have been independently tested by the raw material manufacturers and any known results have been presented below. The results for the individual components may not be representative of the toxicity of this finished product.

Ingredient Name	CAS No.	%	Test	Result	Route	Species
Polyoxypropylenediamine	9046-10-0	10% - 20%	LD50 LD50	2880 mg/kg 2980 mg/kg	Oral Dermal	Rat Rabbit
1,3-Benzenedimethaneamine	1477-55-0	10% - 20%	LD50 LD50	2000 mg/kg 930 mg/kg	Dermal Oral	Rabbit Rat
Trimethylhexanediamine	25620-58-0	5% - 15%	LD50	910 mg/kg	Oral	Rat

-No Further Data Available-

Ingestion

Ingestion may cause gastrointestinal irritation or ulceration. Ingestion may cause burns of mouth and throat. Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury.

Skin Contact

Prolonged or widespread skin contact may result in absorption of harmful amounts.

Irritation

Skin

Brief contact may cause severe skin burns. Symptoms may include pain, severe local redness and tissue damage.
Skin contact has caused allergic skin reactions in certain sensitized individuals.

Eyes

May cause pain disproportionate to the level of irritation to eye tissues. May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

Inhalation

May cause allergic respiratory response. Excessive exposure may cause irritation to upper respiratory tract (nose and throat).

12. ECOLOGICAL INFORMATION

Persistence/degradability:

The material contains components that show little or no evidence of biodegradability**.** Caution should be taken to prevent release to the environment. See Section 13 for further information.

Ecotoxicity Data:

Chemical Name	CAS No.	%	Test	Concentration	Species
Polyoxypropylenediamine	9046-10-0	10% - 20%	LC50	>220 mg/L	Fish(unspecified)
1,3-Benzenedimethaneamine	1477-55-0	10% - 20%	LC50	130 mg/L	Golden Orfe
Nonylphenol	104-40-5	1% - 5%	LC50, 96hr	0.128 mg/L	Fathead Minnow

-No further data available-

Individual components of this mixture have been independently tested by the raw material suppliers and any known results have been presented above. The results for the individual components may not be representative of the ecological toxicity of this finished product. This finished product has not been tested to determine individual toxicological/ecological limits Great Caution should be taken to prevent release to the environment. See Section 13 for further information.

13. DISPOSAL CONSIDERATIONS

Disposal

Preferred method of disposal includes incineration under controlled conditions in accordance with all local and national laws and regulations. The generation of waste should be avoided or minimized wherever possible. Untreated material is not suitable for disposal. Waste, even small quantities, should never be poured down drains, sewers or watercourses. Waste must be disposed

of in accordance with federal, state and local environmental control regulations. This material, when properly mixed and cured with it's resin component at the proper mix ratio, may be safely landfilled.

Contaminated packaging

Empty containers can only be disposed of when the remaining product adhering to the container walls has been removed. Hazard warning labels should be removed from the container only after it has been properly emptied.

14. TRANSPORT INFORMATION

Land-Road/Railway

UN Number:	2735
Proper Shipping Name:	Amines, liquid, corrosive, n.o.s. (Aminoethylpiperazine)
ADR/RID Class:	8
Classification Code:	C7
Packing Group:	III
Hazard Identification Number:	80

Sea

UN/ID Number:	2735
Proper Shipping Name:	Amines, liquid, corrosive, n.o.s. (Aminoethylpiperazine)
IMDG Class:	8
IMDG Page Number:	Not Available
Packing Group:	III
Medical First Aid Guide (MFAG):	Not Available
Emergency Schedules (EmS):	8-05
Marine Pollutant:	Not Pollutant

Air

UN/ID Number:	2815
Proper Shipping Name:	Amines, liquid, corrosive, n.o.s. (Aminoethylpiperazine)
IATA-DGR Class:	8

15. REGULATORY INFORMATION

U.S Regulations

US TSCA:

This product is manufactured in compliance with all provisions of the Toxic Substances Control Act, 15 U.S.C. 2601 et. seq.

Toxic Substances Control Act (TSCA) 12(b) Components:

None Known

OSHA Hazard Communication Standard (29CFR1910.1200) hazard class(es):

Corrosive, Sensitizer

EPA SARA Title III section 302 (40CFR370) Hazard Class:

Immediate Health Hazard, Delayed Health Hazard

EPA SARA Title III section 313 (40 CFR 372) Toxic Chemicals above "de minimus" levels:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

4,4'-Isopropylidenediphenol CAS# 80-05-7

U.S. State Regulations

CAIFORNIA PROP 65: This product contains the following substance known to the State of California to cause cancer:
None Known

EEC MARKING AND LABELLING

Hazard symbol(s):

C **N**

EU Labeling Classification: C-Corrosive; N-Harmful to the environment

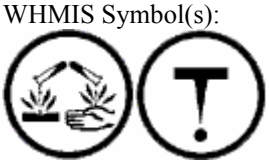
Risk Phrases: R20/21: Harmful by inhalation and in contact with skin
R34: Causes Burns.
R40: Limited evidence of a carcinogenic effect.
R41: Risk of serious damage to eyes
R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

EINECS Status: All components of this product are included in the European Inventory of Existing Chemical Substances (EINECS) in compliance with Council Directive 67/548/EEC and its amendments. CHIP3 Regulations have been applied and meets all requirements.

CANADIAN REGULATIONS

WHMIS Classification: D2A - respiratory tract sensitizer
D2B - skin sensitizer
E - corrosive to metal or skin

WHMIS Symbol(s):



Safety Phrases: S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

DSL: Components of this product have been reported to Environment Canada in accordance with subsection 25 of the Canadian Environmental Protection Act and are included on the Domestic Substances List.

16. OTHER INFORMATION

Definitions:

ACGIH: American Conference of Government Industrial Hygenists
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
TLV: Threshold Limit Value
TWA: Time-Weighted Average
LD50: Lethal Dose (50%)-The minimum dose required for lethal effects in 50% of a given population of test specimens.
LC50: Lethal Concentration (50%)- The minimum concentration required for lethal effects in 50% of a given population of test specimens
NIOSH: National Institute for Occupational Safety and Health
WHMIS: Workplace Hazardous Material Information System
DSL: Domestic Substances List

To the best of our knowledge, the information contained herein is accurate. Final determination of the suitability of any material is the sole responsibility of the users. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.