

In accordance with Hazardous Products Regulations (HPR) (SOR/2015-17)

EFA+(TM) Revision Number 1 Revision date 08-Jun-2020 Supersedes Date: 10-Oct-2023

1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier		
Product Name	EFA+(TM)	
Other means of identification		
Synonyms	None	
Recommended use of the chemical	and restrictions on use	
Recommended use	Adhesives	
Uses advised against	No information available	
Details of the supplier of the safety	data sheet	
Responsible Party Bostik Canada Limited 655 Alphonse-Deshaies Boulevard Becancour Quebec G9H 2Y8 Canada Phone: +1 (514) 593-0418 Fax: +1 (514) 593-0413 E-mail msds@bostik.com	Manufacturer Address Bostik Inc. 11320 W. Watertown Plank Road Wauwatosa, Wisconsin 53226 USA Phone: +1(800) 726-7845 (Domestic Toll Free) Phone: +1 (414) 774-2250 (International)	

Emergency telephone number

CHEMTREC (Chemical Transportation Emergency Center) Chemtrec: 1-800-424-9300 (US), 1-703-527-3887 (Outside U.S.) Rocky Mountain Poison Center: 1-866-767-5089

2. Hazards Identification

Classification

Respiratory sensitization	Category 1
Skin sensitization	Category 1
Flammable liquids	Category 4

Label elements

Danger

Hazard statements

May cause allergy or asthma symptoms or breathing difficulties if inhaled May cause an allergic skin reaction Combustible liquid

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Precautionary Statements - Prevention

Avoid breathing dust, fume, gas, mist, vapors and spray In case of inadequate ventilation wear respiratory protection Contaminated work clothing should not be allowed out of the workplace Wear protective gloves, protective clothing, eye protection and face protection Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Precautionary Statements - Response

Not applicable

Skin

IF ON SKIN: Wash with plenty of water and soap If skin irritation or rash occurs: Get medical advice and attention Take off contaminated clothing and wash it before reuse

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing If experiencing respiratory symptoms: Call a POISON CENTER or doctor

Fire

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

Precautionary Statements - Storage

Store in a well-ventilated place

Precautionary Statements - Disposal

Dispose of contents and container to an approved waste disposal plant

Other information

No data available.

Unknown acute toxicity

20 % of the mixture consists of ingredient(s) of unknown toxicity

3. Composition/information on Ingredients

Substance

Not applicable.

Mixture

Chemical name	CAS No.	Weight-%	Hazardous Material	Date HMIRA filed and
			Information Review Act	date exemption granted
			registry number	(if applicable)
			(HMIRA registry #)	
Limestone	1317-65-3	45 - 70	-	-

Naphtha (petroleum), hydrotreated heavy, <0.1%	64742-48-9	1 - 5	-	-
Benzene				
Methylenediphenyl diisocyanate	26447-40-5	0.1 - 1	-	-
Quartz	14808-60-7	0.1 - 1	-	-
Benzenesulfonyl isocyanate, 4-methyl-	4083-64-1	0.1 - 1	-	-

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First Aid Measures

Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance.	
Inhalation	Remove to fresh air. May cause allergic respiratory reaction. If breathing is difficult, (trained personnel should) give oxygen. Get medical attention immediately if symptoms occur.	
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. If eye irritation persists: Get medical advice/attention.	
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.	
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. If swallowed, call a poison control center or physician immediately.	
Self-protection of the first aider	Remove all sources of ignition. Use personal protective equipment as required. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing.	
Most important symptoms and effects, both acute and delayed		
Symptoms	May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing and/ or wheezing. Itching. Rashes. Hives.	
Indication of any immediate medical attention and special treatment needed		
Note to physicians	May cause sensitization in susceptible persons. Treat symptomatically.	

5. Fire-Fighting Measures	
Suitable extinguishing media	Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam. Move containers from fire area if you can do it without risk.
Unsuitable extinguishing media	CAUTION: Use of water spray when fighting fire may be inefficient.
Specific hazards arising from the chemical	Keep product and empty container away from heat and sources of ignition. Vapors may travel to source of ignition and flash back. Product is or contains a sensitizer. May cause sensitization by skin contact.
Hazardous combustion products	Carbon oxides. Carbon dioxide (CO2).

Explosion data

Sensitivity to mechanical impact None.		
Sensitivity to static discharge	Yes.	
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.	

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Use personal protective equipment as required. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharges. Ensure adequate ventilation. Stop leak if you can do it without risk. Do not touch or walk through spilled material. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists. Wash thoroughly after handling.		
Other information	Refer to protective measures listed in Sections 7 and 8.		
Environmental precautions			
Environmental precautions	Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. Refer to protective measures listed in Sections 7 and 8.		
Methods and material for containment and cleaning up			
Methods for containment	Stop leak if you can do it without risk. A vapor suppressing foam may be used to reduce vapors. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).		
Methods for cleaning up	Use personal protective equipment as required. Dam up. Soak up with inert absorbent material. Use clean non-sparking tools to collect absorbed material. Pick up and transfer to properly labeled containers. Take precautionary measures against static discharges. Clean contaminated surface thoroughly.		
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.		

7. Handling and Storage

Precautions for safe handling

Advice on safe handling Use personal protection equipment. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Do not breathe vapor or mist. Use with local exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

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Storage Conditions	Keep out of the reach of children. Keep in properly labeled containers. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Protect from moisture.
Reference to other sections	Section 10: STABILITY AND REACTIVITY

8. Exposure Controls/Personal Protection

Control parameters

Exposure Limits

This product contains substances which in their raw state are powder form, however in this product they are in a non-respirable form. Inhalation of powder/dust particles is unlikely to occur from exposure to this product.

Chemical name	Alberta	British Columbia	Ontario TWA	Quebec
Limestone	TWA: 10 mg/m ³	TWA: 10 mg/m ³		TWA: 10 mg/m ³
1317-65-3		TWA: 3 mg/m ³		
		STEL: 20 mg/m ³		
Methylenediphenyl		TWA: 0.005 ppm		
diisocyanate		Ceiling: 0.01 ppm		
26447-40-5				
Quartz	TWA: 0.025 mg/m ³	TWA: 0.025 mg/m ³	TWA: 0.10 mg/m ³	TWA: 0.1 mg/m ³
14808-60-7	-			_

Appropriate engineering controls

Engineering controls	Showers Eyewash stations Ventilation systems.
Individual protection measures, such	ch as personal protective equipment
Eye/face protection	Tight sealing safety goggles. Avoid contact with eyes.
Hand protection	Wear suitable chemical resistant gloves. The selection of suitable gloves does not only depend on the material, but also on further marks of quality and various manufacturers.
Skin and body protection	Wear suitable protective clothing.
Respiratory protection	Use appropriate respiratory protection.
General hygiene considerations	Wear suitable gloves and eye/face protection. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Take off contaminated clothing and wash before reuse. Regular cleaning of equipment, work area and clothing is recommended.

9. Physical and Chemical Properties

Information on basic physical and chemical properties Liquid

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Appearance Color Odor Odor threshold	Paste White No information available No information available		
<u>Property</u> pH pH (as aqueous solution) Melting point / freezing point	<u>Values</u> No data available No data available No data available	<u>Remarks • Method</u>	
Initial boiling point and boiling rang Flash point Evaporation rate Flammability Flammability Limit in Air	je 172 °C / 341.6 °F 63 °C / 145.4 °F No data available Not applicable for liquids .	CC (closed cup)	
Upper flammability or explosive limits Lower flammability or explosive limits	No data available No data available		
Vapor pressure Relative vapor density Relative density Water solubility	No data available No data available No data available No data available		
Solubility in Other Solvents Partition coefficient Autoignition temperature Decomposition temperature	No data available No data available No data available		
Kinematic viscosity Dynamic viscosity Explosive properties	No data available No data available No information available.		
Oxidizing properties	No information available.		
Other information Softening Point Molecular weight Density Bulk density Solid content (%) VOC content	No information available No information available 1.649 g/cm ³ No information available 95.5 <2 % <25 g/L	No information available	
10. Stability and Reactivity			
Reactivity	No information available.		
Chemical stability	Stable under normal conditions.		
Possibility of hazardous reactions	None under normal processing.		
Conditions to avoid	Heat, flames and sparks. Protect from moisture.		
Incompatible materials	None known based on information supplied.		

Hazardous decomposition products None known based on information supplied.

11. Toxicological Information

Information on likely routes of exposure

Product Information	
Inhalation	May cause sensitization in susceptible persons.
Eye contact	Based on available data, the classification criteria are not met.
Skin contact	May cause sensitization by skin contact.
Ingestion	May cause additional affects as listed under "Inhalation".
Symptoms related to the physical, of	chemical and toxicological characteristics
Symptoms	Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing. Coughing and/ or wheezing. Itching. Rashes. Hives.

Numerical measures of toxicity

Acute toxicity

The following values are calculated	based on chapter 3.1 of the GHS document
ATEmix (oral)	>5000 mg/kg
ATEmix (dermal)	45,114.00 mg/kg
ATEmix (inhalation-gas)	>20000
mg/l	
ATEmix (inhalation-dust/mist)	>5 mg/l
ATEmix (inhalation-vapor)	>20 mg/l

Unknown acute toxicity

20 % of the mixture consists of ingredient(s) of unknown toxicity

Component Information

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Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Limestone 1317-65-3	>5000 mg/kg (Rattus)	-	-
Naphtha (petroleum), hydrotreated heavy, <0.1% Benzene 64742-48-9	>6000 mg/kg (Rattus)	> 3160 mg/kg (Oryctolagus cuniculus)	>8500 mg/m³ (Rattus) 4 h
Methylenediphenyl diisocyanate 26447-40-5	>10000 mg/kg (Rattus)	> 10000 mg/kg (Oryctolagus cuniculus)	=490 mg/m ³ (Rattus) 4 h
Quartz 14808-60-7	>2000 mg/kg (Rattus)	-	-
Benzenesulfonyl isocyanate, 4-methyl- 4083-64-1	=2234 mg/kg (Rattus)	LD 50 (Rattus) > 2000 mg/kg OECD 402	>640 ppm (Rattus) 1 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Based on available data, the classification criteria are not met.

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Respiratory or skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	This product contains substances which in their raw state are powder form, however in this product they are in a non-respirable form. Inhalation of powder/dust particles is unlikely to

occur from exposure to this product.

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

Chemical name	ACGIH	IARC	NTP	OSHA
Methylenediphenyl diisocyanate 26447-40-5	-	Group 3	-	-
Quartz 14808-60-7	A2	Group 1	Known	Х

ACGIH (American Conference of Governmental Industrial Hygienists) A2 - Suspected Human Carcinogen IARC (International Agency for Research on Cancer) Group 1 - Carcinogenic to Humans Group 3 - Not Classifiable as to Carcinogenicity in Humans NTP (National Toxicology Program) Known - Known Carcinogen OSHA (Occupational Safety and Health Administration of the US Department of Labor) X - Present		
Reproductive toxicity	Based on available data, the classification criteria are not met.	
STOT - single exposure	Based on available data, the classification criteria are not met.	
STOT - repeated exposure	Based on available data, the classification criteria are not met.	
Target organ effects	No information available.	
Subchronic toxicity	No information available.	
Neurological effects	No information available.	
Other adverse effects	No information available.	
Aspiration hazard	Based on available data, the classification criteria are not met.	

12. Ecological Information

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to	Crustacea
			microorganisms	

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Limestone	CE50 (72h) >200mg/L	CL50 (96h)>10000mg/L	-	CE50 (48h) >1000 mg/L
1317-65-3	Algae (Desmondesmus	(Oncorhynchus mykiss)		Daphnia Magna
	subspicatus)			
Naphtha (petroleum),	-	LC50: =2200mg/L (96h,	-	LC50: =2.6mg/L (96h,
hydrotreated heavy,		Pimephales promelas)		Chaetogammarus
<0.1% Benzene				marinus)
64742-48-9				
Methylenediphenyl	EC50: =3230mg/L (96h,	-	-	EC50: >1000mg/L (24h,
diisocyanate	Skeletonema costatum)			Daphnia magna)
26447-40-5				

Persistence and degradability

No information available.

Bioaccumulation

There is no data for this product.

Component Information

Chemical name	Partition coefficient
Limestone	0.9
1317-65-3	
Methylenediphenyl diisocyanate	4.5
26447-40-5	
Benzenesulfonyl isocyanate, 4-methyl-	0.6
4083-64-1	

Mobility i	in soil
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No information available

Other adverse effects

No information available.

13. Disposal Considerations

Disposal methods	
Waste from residues/unused products	It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.
Contaminated packaging	Do not reuse empty containers.

14. Transport Information

TDG	Not regulated
IATA	Not regulated
IMDG	Not regulated

15. Regulatory Information

NPRI - National Pollutant Release Inventory

No component is listed on the NPRI above the threshold

European Union

SVHC: Substances of Very High Concern for Authorization:

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Restrictions of Use of Hazardous Substances (RoHS) Directive 2011/65/EU

This product does not contain Lead, Cadmium, Mercury, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-Ethylhexyl) phthalate (DEHP), Benzyl butyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) above the regulated limit mentioned in this regulation. This document is based on the information given to us by our own suppliers at the date of this document.

International Inventories

TSCA	Listed
DSL	Listed

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL - Canadian Domestic Substances List

Listed - The components of this product are either listed or exempt from listing on inventory.

Not Listed - One or more components of this product are not listed on inventory.

16. Other information, including date of preparation of the last revision

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA Ceiling	TWA (time-weighted average) Maximum limit value	STEL *	STEL (Short Term Exposure Limit) Skin designation
Revision date	08-Jun-2020		
Revision Note	No information availab	le.	

Prepared By Product Safety & Regulatory Affairs

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The Company adheres to a strict policy that applies to the use of any of its products in medical device applications. This

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policy can be found at

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End of Safety Data Sheet