SAFETY DATA SHEET

ASI™ EV Bond 420 A

Version 1.0 Revision Date 02/05/2021

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ASI™ EV Bond 420 A
Product code : 100000015942

Manufacturer or supplier's details

Company : H.B. Fuller Engineering Adhesives
Address : 9001 W Fey Drive
Frankfort, IL, 60423
Telephone : 1-815-464-5606

Medical Emergency Phone Number (24 Hours): 1-888-853-1758

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

Recommended use of the chemical and restrictions on use

Recommended use : Adhesive
Restrictions on use : For industrial use only.

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	liquid
Color	off-white
Odor	slight

GHS Classification

Skin irritation : Category 2
Serious eye damage : Category 1
Skin sensitization : Category 1
Reproductive toxicity : Category 1B

GHS label elements

Hazard pictograms :

Signal Word : Danger

Hazard Statements:
H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H360 May damage fertility or the unborn child.
Precautionary Statements:
Prevention: P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. P264 Wash skin thoroughly after handling. P272 Contaminated work clothing must not be

allowed out of the workplace. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response: P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER. P308 + P313 IF exposed or concerned: Get medical advice/ attention. P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention. P362 Take off contaminated clothing and wash before reuse.
Storage: P405 Store locked up.
Disposal: P501 Dispose of contents/ container to an approved waste disposal plant.

Potential Health Effects

Carcinogenicity:

IARC	No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous ingredients

Chemical name	CAS-No.	Concentration [%]
tetrahydrofurfuryl methacrylate	2455-24-5	10 - 20
methacrylic acid	79-41-4	1 - 5
Poly(oxy-1,2-ethanediyl), .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-[(2-methyl-1-oxo-2-propenyl)oxy]-	25852-47-5	1 - 5
2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, phosphate	52628-03-2	0.1 - 1
methyl methacrylate	80-62-6	0.1 - 1
2,2'-[(4-methylphenyl)imino]bisethanol	3077-12-1	0.1 - 1

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice	:	Show this material safety data sheet to the doctor in attendance.
If inhaled	:	Move to fresh air. Keep patient warm and at rest. Consult a physician after significant exposure.
In case of skin contact	:	Wash off immediately with soap and plenty of water. Call a physician if irritation develops or persists.
In case of eye contact	:	Rinse immediately with plenty of water, also under the eyelids.

		Seek medical advice.
If swallowed	:	If swallowed, call a poison control center or doctor immediately. Do not induce vomiting without medical advice. Drink plenty of water.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Carbon dioxide (CO2) Sand Foam
Unsuitable extinguishing media	:	Water
Hazardous combustion products	:	No hazardous combustion products are known
Specific extinguishing methods	:	
Further information	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Special protective equipment for fire-fighters	:	Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation.
Environmental precautions	:	Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.
Methods and materials for containment and cleaning up	:	Ventilate the area. Soak up with inert absorbent material. Use neutralizing agents. Shovel or sweep up.

SECTION 7. HANDLING AND STORAGE

Local/Total ventilation	:	Use only with adequate ventilation.
Advice on safe handling	:	Wear personal protective equipment. Do not get on skin or clothing. Keep away from heat and flame.
Conditions for safe storage	:	Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container.
Materials to avoid	:	Do not store together with oxidizing and self-igniting products.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
methacrylic acid	79-41-4	TWA	20 ppm	ACGIH
		TWA	20 ppm 70 mg/m3	OSHA P0
		PEL	20 ppm 70 mg/m3	CAL PEL
methyl methacrylate	80-62-6	TWA	50 ppm	ACGIH
		STEL	100 ppm	ACGIH
		TWA	100 ppm 410 mg/m3	OSHA Z-1
		TWA	100 ppm 410 mg/m3	OSHA P0
		PEL	50 ppm 205 mg/m3	CAL PEL
		STEL	100 ppm 410 mg/m3	CAL PEL
methacrylic acid	79-41-4	TWA	20 ppm	ACGIH
		TWA	20 ppm 70 mg/m3	OSHA P0
		PEL	20 ppm 70 mg/m3	CAL PEL
methyl methacrylate	80-62-6	TWA	50 ppm	ACGIH
		STEL	100 ppm	ACGIH
		TWA	100 ppm 410 mg/m3	OSHA Z-1
		TWA	100 ppm 410 mg/m3	OSHA P0
		PEL	50 ppm 205 mg/m3	CAL PEL
		STEL	100 ppm 410 mg/m3	CAL PEL

Personal protective equipment

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Filter type : Combined particulates and organic vapor type

Hand protection
Material : Impervious gloves

Eye protection : Tightly fitting safety goggles
Ensure that eyewash stations and safety showers are close to the workstation location.

Skin and body protection : Long sleeved clothing
Preventive skin protection

Protective measures : Avoid contact with skin.

Hygiene measures	:	Avoid contact with skin, eyes and clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	off-white
Odor	:	slight
Odor Threshold	:	No data available
Melting point/freezing point	:	is not determined
Boiling point/boiling range	:	is not determined
Evaporation rate	:	is not determined
Flammability (solid, gas)	:	Not classified as a flammability hazard
Upper explosion limit	:	Upper flammability limit is not determined
Lower explosion limit	:	Lower flammability limit is not determined
Density	:	1.6 g/cm3
Solubility(ies)		
Water solubility	:	is not determined
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	is not determined
Viscosity		
Viscosity, kinematic	:	is not determined

SECTION 10. STABILITY AND REACTIVITY

Chemical stability	:	The product is chemically stable.
Hazardous decomposition products	:	Nitrogen oxides (NOx) Sulfur oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate : 145.91 mg/l

Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

Components:

methacrylic acid:
Acute inhalation toxicity : LC50 Rat: 7.1 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

methyl methacrylate:
Acute inhalation toxicity : LC50 Rat: 4632 ppm
Exposure time: 4 h
Test atmosphere: vapor

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration toxicity

No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:
methyl methacrylate :

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 79 mg/l Exposure time: 96 h Test Method: flow-through test
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 69 mg/l Exposure time: 48 h Test Method: static test

Persistence and degradability

No data available

Bioaccumulative potential

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Do not dispose of together with household waste. Do not dispose of waste into sewer. To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Disposal via incineration at an approved facility is recommended, as industry best practice. Consult state, local or provincial authorities for more restrictive requirements.

SECTION 14. TRANSPORT INFORMATION

Special precautions for user

Not applicable

Domestic regulation

49 CFR
Not regulated as a dangerous good

International Regulations

UNRTDG
Not regulated as a dangerous good

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

SECTION 15. REGULATORY INFORMATION

SARA 311/312 Hazards : Respiratory or skin sensitization
Reproductive toxicity
Skin corrosion or irritation
Serious eye damage or eye irritation

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):

methyl methacrylate	80-62-6

US State Regulations

California Prop 65 : Please contact Supplier for more information.

The ingredients of this product are reported in the following inventories:

TSCA	All substances listed as active on the TSCA inventory
DSL	All components of this product are on the Canadian DSL
KECI	On the inventory, or in compliance with the inventory

Inventories LegendTSCA (USA), DSL (Canada), REACH(Europe), AICS (Australia), NZIoC (New Zealand), ENCS (Japan), KECI (Korea), PICCS (Philippines), IECSC (China), TWINV (Taiwan)

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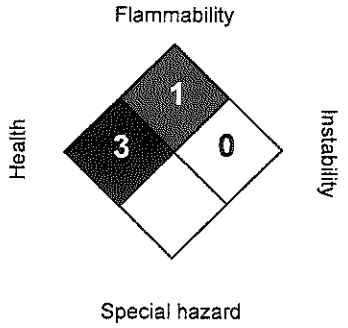
SECTION 16. OTHER INFORMATION

Prepared by: Global Regulatory Department - phone: 1-651-236-5842 - email: msds.request@hbfuller.com

Further information

NFPA:



HMIS III:

HEALTH	3*
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

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