SAFETY DATA SHEET

ASI™ EV Bond 420 B

Version 1.0 Revision Date 02/05/2021

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ASI™ EV Bond 420 B
Product code : 100000015944

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 : Activator
Restrictions on use : For industrial use only.

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	solid
Color	yellow
Odor	characteristic

GHS Classification

Skin irritation : Category 2
Eye irritation : Category 2A
Skin sensitization : Category 1
Carcinogenicity : Category 2
Reproductive toxicity : Category 1B
Specific target organ toxicity - repeated exposure : Category 2

GHS label elements

Hazard pictograms :

Signal Word : Danger

Hazard Statements:
H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H351 Suspected of causing cancer. H360 May damage fertility or the unborn child. H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements:
Prevention: P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe 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 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P313 IF exposed or concerned: Get medical advice/ attention. P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention. P337 + P313 If eye irritation persists: 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	Group 2B: Possibly carcinogenic to humans	
	cumene	98-82-8
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	Reasonably anticipated to be a human carcinogen	
	cumene	98-82-8

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous ingredients

Chemical name	CAS-No.	Concentration [%]
dibenzoyl peroxide	94-36-0	20 - 30
Epoxy resin	25068-38-6	10 - 20
dibutyl phthalate	84-74-2	10 - 20
zinc distearate	557-05-1	1 - 5
calcium sulfate	7778-18-9	1 - 5
α,α-dimethylbenzyl hydroperoxide	80-15-9	1 - 3
Silica, amorphous fumed	112945-52-5	1 - 5
2,6-di-tert-butyl-p-cresol	128-37-0	1 - 5
cumene	98-82-8	0.1 - 1

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.

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. Do not flush with water. 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

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
dibenzoyl peroxide	94-36-0	TWA	5 mg/m3	ACGIH
		TWA	5 mg/m3	NIOSH REL
		TWA	5 mg/m3	OSHA Z-1
		TWA	5 mg/m3	OSHA P0
		PEL	5 mg/m3	CAL PEL
dibutyl phthalate	84-74-2	TWA	5 mg/m3	ACGIH
		TWA	5 mg/m3	OSHA Z-1
		TWA	5 mg/m3	OSHA P0
		PEL	5 mg/m3	CAL PEL
zinc distearate	557-05-1	TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3	OSHA Z-1
		TWA (Total)	10 mg/m3	OSHA P0
		TWA (Respirable fraction)	5 mg/m3	OSHA P0
		TWA	10 mg/m3	ACGIH
		TWA (Total dust)	10 mg/m3	OSHA P0
		TWA (respirable dust fraction)	5 mg/m3	OSHA P0
		PEL	10 mg/m3	CAL PEL
		TWA (Inhalable particulate matter)	10 mg/m3	ACGIH
		TWA (Respirable particulate matter)	3 mg/m3	ACGIH
calcium sulfate	7778-18-9	TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3	OSHA Z-1
		TWA (Total)	15 mg/m3	OSHA P0
		TWA (Respirable fraction)	5 mg/m3	OSHA P0
		TWA	10 mg/m3	ACGIH

		(Inhalable particulate matter)		
		TWA (Total dust)	15 mg/m3	OSHA P0
		TWA (respirable dust fraction)	5 mg/m3	OSHA P0
		PEL (Total dust)	10 mg/m3	CAL PEL
		PEL (respirable dust fraction)	5 mg/m3	CAL PEL
		TWA (Inhalable particulate matter)	10 mg/m3	ACGIH
Silica, amorphous fumed	112945-52-5	TWA (Dust)	20 Million particles per cubic foot	OSHA Z-3
		TWA (Dust)	80 mg/m3 / %SiO2	OSHA Z-3
		TWA (Dust)	20 Million particles per cubic foot	OSHA Z-3
		TWA (Dust)	80 mg/m3 / %SiO2	OSHA Z-3
2,6-di-tert-butyl-p-cresol	128-37-0	TWA (Inhalable fraction and vapor)	2 mg/m3	ACGIH
		TWA	10 mg/m3	OSHA P0
		PEL	10 mg/m3	CAL PEL
cumene	98-82-8	TWA	50 ppm	ACGIH
		TWA	50 ppm 245 mg/m3	NIOSH REL
		TWA	50 ppm 245 mg/m3	OSHA Z-1
		TWA	50 ppm 245 mg/m3	OSHA P0
		PEL	50 ppm 245 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	:	solid
Color	:	yellow
Odor	:	characteristic
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	:	0.94 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 : 175.15 mg/l
Exposure time: 4 h
Test atmosphere: vapor
Method: Calculation method

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

Components:

α,α-dimethylbenzyl hydroperoxide:
Acute oral toxicity : LD50 Oral Rat: 382 mg/kg

Acute inhalation toxicity : LC50 Rat: 220 ppm
Exposure time: 4 h
Test atmosphere: vapor

Acute dermal toxicity : LD50 Dermal Rat: 500 mg/kg

2,6-di-tert-butyl-p-cresol:
Acute oral toxicity : LD50 Oral Rat: 6,000 mg/kg

cumene:
Acute oral toxicity : LD50 Oral Rat: 1,400 mg/kg

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:
dibutyl phthalate :

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 0.31 - 5.45 mg/l Exposure time: 96 h Test Method: static test
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 2.99 mg/l Exposure time: 48 h Test Method: static test
Toxicity to algae	:	EC50 (Pseudokirchneriella subcapitata (microalgae)): 0.4 mg/l Exposure time: 96 h Test Type: static test

calcium sulfate :

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): > 1,970 mg/l Exposure time: 96 h Test Method: static test

α,α-dimethylbenzyl hydroperoxide :

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 3.9 mg/l Exposure time: 96 h Test Method: static test
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 7 mg/l Exposure time: 24 h Test Method: static test

2,6-di-tert-butyl-p-cresol :

Toxicity to fish	:	LC50 (Oryzias latipes (Japanese medaka)): 5 mg/l Exposure time: 48 h Test Method: static test
Toxicity to algae	:	EC50 (Desmodesmus subspicatus (green algae)): > 0.42 mg/l Exposure time: 72 h Test Type: flow-through test

cumene :

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 2.7 mg/l Exposure time: 96 h Test Method: semi-static test
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.6 mg/l Exposure time: 48 h Test Method: static test
Toxicity to algae	:	EC50 (Pseudokirchneriella subcapitata (microalgae)): 2.6 mg/l Exposure time: 72 h Test Type: flow-through 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

UN/ID/NA number	:	3077
Proper shipping name	:	Environmentally hazardous substance, solid, n.o.s.

(DIBUTYL PHTHALATE)

Class	: 9
Packing group	: III
Labels	: 9
ERG Code	: 171
Marine pollutant	: no

International Regulations

IATA-DGR

UN/ID No.	: 3077
Proper shipping name	: Environmentally hazardous substance, solid, n.o.s.
	(DIBUTYL PHTHALATE, EPOXY RESIN)
Class	: 9
Subsidiary risk	: ENVIRONM.
Packing group	: III
Labels	: 9 (ENVIRONM.)
Packing instruction (cargo aircraft)	: 956
Packing instruction (passenger aircraft)	: 956

IMDG-Code

UN number	: 3077
Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
	(DIBUTYL PHTHALATE, EPOXY RESIN)
Class	: 9
Subsidiary risk	: ENVIRONM.
Packing group	: III
Labels	: 9 (ENVIRONM.)
EmS Code	: F-A, S-F
Marine pollutant	: no

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 : Skin corrosion or irritation
Serious eye damage or eye irritation
Respiratory or skin sensitization
Carcinogenicity
Reproductive toxicity
Specific target organ toxicity (single or repeated exposure)

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

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

dibenzoyl peroxide	94-36-0
dibutyl phthalate	84-74-2
zinc distearate	557-05-1
α,α-dimethylbenzyl hydroperoxide	80-15-9
cumene	98-82-8

Clean Air Act

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

dibutyl phthalate	84-74-2
cumene	98-82-8

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
AIIC	On the inventory, or in compliance with the inventory
KECI	On the inventory, or in compliance with the inventory
IECSC	On the inventory, or in compliance with the inventory

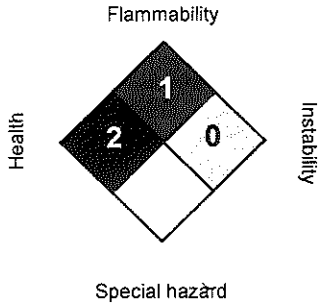
Inventories LegendTSCA (USA), DSL (Canada), REACH(Europe), AICS (Australia), NZIoC (New Zealand), ENCS (Japan), KECI (Korea), PICCS (Philippines), IECSC (China), TWINV (Taiwan)

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	2*
FLAMMABILITY	1
PHYSICAL HAZARD	0

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

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