SDS Revision Date:

BROADVIEW TECHNOLOGIES INC.

07/17/2015

1. Identification

1.1. Product identifier	
Product Identity	INTUMAX® EP-102
Alternate Names	Intumax® EP-102
1.2. Relevant identified uses of the substance or mix	ture and uses advised against
Intended use	Flame Retardant – two part epoxy coating resin.
Application Method	See Technical Data Sheet.
1.3. Details of the supplier of the safety data sheet	
Company Name	Broadview Technologies
	7-33 Amsterdam Street
	Newark, NJ 07105
Emergency	
CHEMTREC (USA)	(800) 424-9300
Customer Service: Broadview Technologies	(973)-465-0077

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Acute Tox. 5;H303	May be harmful if swallowed. (Not adopted by US OSHA)
Skin Corr. 1;H314	Causes severe skin burns and eye damage.
Eye Irrit. 2;H319	Causes serious eye irritation.
Skin Sens. 1;H317	May cause an allergic skin reaction.
Aquatic Chronic 2;H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



H303 May be harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

SDS Revision Date:

07/17/2015



[Prevention]:

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.

P264 Wash thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P310 Immediately call a POISON CENTER or doctor / physician.

P313 Get medical advice / attention.

P321 Specific treatment (see information on this label).

P333+313 If skin irritation or a rash occurs: Get medical advice / attention.

P337+313 If eye irritation persists: Get medical advice / attention.

P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P363 Wash contaminated clothing before reuse.

P391 Collect spillage.

[Storage]:

P405 Store locked up.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
EPOXY RESIN LIQUID CAS Number: 0025085-99-8	50 - 75	Skin Irrit. 2;H315 Skin Sens. 1;H317 Eye Irrit. 2;H319 Aquatic Chronic 2;H411	[1]
Polyoxypropylenediamine CAS Number: 0009046-10-0	10 - 25	Skin Corr. 1;H314	[1]
Melamine Pyrophsophate CAS Number: 15541-60-3	10 - 25	Not Classified	[1]

SDS Revision Date:

07/17/2015



In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

Substance classified with a health or environmental hazard.
 Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance. *The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1.	Descri	ption	of	first	aid	measures

General	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
Eyes	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
Ingestion	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.
4.2. Most important sy	mptoms and effects, both acute and delayed
Overview	 SKIN CONTACT: Corrosive to skin. Prolonged contact with skin may cause reddening, swelling, rash (hives) or sensitization. It may cause irritation, and direct skin contact is the route of exposure most likely to cause sensitization. EYE CONTACT: Corrosive to eyes. Burns of the eyes may cause blindness. Contact of diluted product with the eyes or skin quickly causes severe irritation and pain and may cause burns, necrosis and permanent injury. INHALATION: Vapors and fumes may cause irritation of the respiratory tract (nose, throat, lungs) and may cause adverse respiratory effects such as cough, tightness of chest or shortness of breath. INGESTION: Product may be slightly toxic and may produce CNS depression. Obtain emergency medical help. AGGRAVATED Pre-existing eye, skin, and respiratory disorders may be aggravated by exposure to fumes or vapors of this product. Existing allergies may increase the chance of developing increased allergy symptoms. See section 2 for further details.
Eyes	Causes serious eye irritation.
Skin	May cause an allergic skin reaction. Causes severe skin burns and eye damage.
Ingestion	May be harmful if swallowed. (Not adopted by US OSHA)

SDS Revision Date:

07/17/2015



5. Fire-fighting measures

5.1. Extinguishing media

In case of large fire use: Water Spray, and Foam. In case of small fire, use Carbon Dioxide, Dry Chemical fire extinguishers, dry sand or limestone

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: By heat and fire: Carbon dioxide, carbon monoxide. Ammonia when heated. Nitrogen oxide in the fire. Nitrogen oxide can react with water vapors to form corrosive nitric acid. Phosphorous Compounds.

Avoid breathing dust / fume / gas / mist / vapors / spray.

5.3. Advice for fire-fighters

Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by fire fighters. Do not enter a confined space without full bunker gear, including a positive pressure NIOSH approved by self-contained breathing apparatus.

Products of combustion are toxic. If water must be used, use a fog nozzle to avoid spread of burning liquid and increased evaporation of volatile, flammable material.

ERG Guide No.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Remove all sources of ignition and ventilate the area. Dike and contain spilled material and control further spillage if feasible. Cover spill with clay, sand, saw dust, vermiculite, Fuller's earth or other suitable absorbent. Collect material in non-leaking containers and seal tightly for disposal. Refer to section 13 for disposal information

7. Handling and storage

7.1. Precautions for safe handling

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Store indoors in a cool dry place away from heat, sparks and flame. Keep containers tightly closed when not in use.

SDS Revision Date:

07/17/2015



Keep away from acids and oxidizers. Do not store in an iron or other reactive metal containers.

Incompatible materials: No data available.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0009046-10-0	Polyoxypropylenediamine	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0025085-99-8	EPOXY RESIN LIQUID	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0068333-79-9	Ammonium polyphosphate	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value
0009046-10-0	Polyoxypropylenediamine	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0025085-99-8	EPOXY RESIN LIQUID	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0068333-79-9	Ammonium polyphosphate	OSHA Select Carcinogen: No	
		NTP Known: No; Suspected: No	
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

8.2. Exposure controls

Respiratory

Avoid breathing vapors. Avoid breathing aerosols and mists. Use NIOSH / MSHA approved respiratory protection equipment when airborne exposure is excessive. Observe OSHA regulations for respirator use (29 CFR 1910.134).

SDS Revision Date:

07/17/2015



Eyes Skin	Full face shields with goggles underneath. Contact lenses should not be worn. Avoid contact with skin and clothing. Use chemical resistant protective gloves such as neoprene rubber gloves, nitrile rubber gloves, cuffed butyl rubber gloves and other impermeable gloves.
Engineering Controls	Hazard control from vapor or spray mist is ideally performed by the use of engineering controls. General or local ventilation or isolation may prove adequate to keep airborne exposures below exposure limits.
Other Work Practices	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance	Clear, water-white Liquid
Odor	Unknown
Odor threshold	Not determined
рН	Not Measured
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	Not Measured
Flash Point	>325°F
Evaporation rate (Ether = 1)	0 to 1
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: Not Measured
	Upper Explosive Limit: Not Measured
Vapor pressure (Pa)	Not Measured
Vapor Density	Not Measured
Specific Gravity	1.2
Solubility in Water	Not Determined
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured
Weight per gallon	10 lbs
9.2. Other information	
No other relevant information	

No other relevant information.

SDS Revision Date:

07/17/2015



10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances. Will thermally decompose at approximately 300C.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

By heat and fire: Carbon dioxide, carbon monoxide. Ammonia when heated. Nitrogen oxide in the fire. Nitrogen oxide can react with water vapors to form corrosive nitric acid. Phosphorous Compounds.

11. Toxicological information

Acute toxicity

Based on the properties of the epoxy constituents and considering toxicological data on similar preparations this preparation may be an irritant and a skin and respiratory sensitizer. Low molecular weight epoxy constituents are irritating to eyes, mucous membranes and skin. Repeated skin contact may lead to irritation and sensitization, possibly with cross-sensitization to other epoxies. Skin contact with the preparation and exposure to spray mist and vapor should be avoided.

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
EPOXY RESIN LIQUID - (25085-99-8)	No data	No data	No data	No data	No data
	available	available	available	available	available
Polyoxypropylenediamine - (9046-10-0)	1,100.00, Rat -	980.00, Rabbit -	No data	No data	No data
	Category: 4	Category: 3	available	available	available
Ammonium polyphosphate - (68333-79-9)	2,000.00, Rat -	No data	No data	No data	No data
	Category: 4	available	available	available	available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	5	May be harmful if swallowed. (Not adopted by US

SDS Revision Date:

07/17/2015



		OSHA)
Acute toxicity (dermal)		Not Applicable
Acute toxicity (inhalation)		Not Applicable
Skin corrosion/irritation	1	Causes severe skin burns and eye damage.
Serious eye damage/irritation	2	Causes serious eye irritation.
Respiratory sensitization		Not Applicable
Skin sensitization	1	May cause an allergic skin reaction.
Germ cell mutagenicity		Not Applicable
Carcinogenicity		Not Applicable
Reproductive toxicity		Not Applicable
STOT-single exposure		Not Applicable
STOT-repeated exposure		Not Applicable
Aspiration hazard		Not Applicable

12. Ecological information

12.1. Toxicity

Toxic to aquatic life with long lasting effects. Harmful to aquatic life.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
EPOXY RESIN LIQUID - (25085-99-8)	Not Available	Not Available	Not Available
Polyoxypropylenediamine - (9046-10-0)	Not Available	15.00, Daphnia magna	Not Available
Ammonium polyphosphate - (68333-79-9)	70.00, Oncorhynchus tshawytscha	813.00, Daphnia magna	10.00 (96 hr), Pseudokirchneriella subcapitata

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

SDS Revision Date:

07/17/2015



12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information **DOT (Domestic Surface** IMO / IMDG (Ocean ICAO/IATA Transportation) Transportation) 14.1. UN number Not Applicable Not Regulated Not Regulated 14.2. UN proper shipping Not Regulated Not Regulated Not Regulated name 14.3. Transport hazard DOT Hazard Class: Not **IMDG:** Not Applicable Air Class: Not Applicable class(es) Applicable Sub Class: Not Applicable 14.4. Packing group Not Applicable Not Applicable Not Applicable 14.5. Environmental hazards IMDG Marine Pollutant: Yes (EPOXY RESIN LIQUID) 14.6. Special precautions for user No further information

15. Regulatory information

Regulatory Overview	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.	
Toxic Substance Control Act (TSCA)	All components of this material are either listed or exempt from listing on the TSCA Inventory.	
WHMIS Classification	D2B	
US EPA Tier II Hazards	Fire: No	

Sudden Release of Pressure: No Reactive: No Immediate (Acute): Yes Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

SDS Revision Date:

07/17/2015



EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%): To the best of our knowledge, there are no chemicals at levels which require reporting under this statute. **Proposition 65 - Female Repro Toxins (>0.0%):**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%): To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%) :

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Pennsylvania RTK Substances (>1%) :

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H411 Toxic to aquatic life with long lasting effects.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

End of Document