



Safety Data Sheet
POUR-N-SEAL Component A
SDS Revision Date: 5/4/2015

1. Identification

1.1. Product identifier

Product Identity	POUR-N-SEAL Component A
Alternate Names	Pour-N-Seal Component A

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	See Technical Data Sheet.
Application Method	See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name	Raven Industries, Inc. – Engineered Films Division 821 W. Algonquin Street Sioux Falls, SD 57104
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Company Contacts

Raven Industries INC.	Direct: (605) 335-0250 Cindy.heppler@ravenind.com
24 hour Emergency Telephone No.	(605) 335-0250

If immediate assistance is not obtained, please call 911.

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Skin Irrit. 2;H315	Causes skin irritation.
Eye Irrit. 2;H319	Causes serious eye irritation.
Skin Sens. 1;H317	May cause an allergic skin reaction.
Muta. 2;H341	Suspected of causing genetic defects.
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.

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Safety Data Sheet POUR-N-SEAL Component A SDS Revision Date: 5/4/2015



Warning

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H341 Suspected of causing genetic defects.
- H411 Toxic to aquatic life with long lasting effects.

[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 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]:

- P302+352 IF ON SKIN: Wash with plenty of soap and water.
- P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
- P308+313 IF exposed or concerned: 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.
- P362 Take off contaminated clothing and wash before reuse.
- 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.



Safety Data Sheet
POUR-N-SEAL Component A
SDS Revision Date: 5/4/2015

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
Diglycidyl ether of bisphenol A CAS Number: 0025068-38-6	50 - 75	Eye Irrit. 2;H319 Skin Irrit. 2;H315 Skin Sens. 1;H317 Aquatic Chronic 2;H411	[1]
Bisphenol F epoxy resin CAS Number: 0028064-14-4	25 - 50	Skin Irrit. 2;H315 Eye Irrit. 2;H319 Skin Sens. 1;H317 Aquatic Chronic 2;H411	[1]
Oxirane, (butoxymethyl)- CAS Number: 0002426-08-6	1.0 - 10	Flam. Liq. 3;H226 Muta. 2;H341 Acute Tox. 4;H332 Acute Tox. 4;H302 STOT SE 3;H335 Skin Sens. 1;H317 Aquatic Chronic 3;H412	[1][2]

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.

[1] Substance classified with a health or environmental hazard.

[2] 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. Description 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** Immediately take off all contaminated clothing. For skin contact, wash immediately with soap and water. If irritation persists, get medical attention.
- Ingestion** If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

- Overview** **Eyes:** Irritating to the eyes
- Skin:** May cause skin irritation; potential sensitizer. Skin inflammation is characterized by itching, scaling and reddening.



Safety Data Sheet
POUR-N-SEAL Component A
SDS Revision Date: 5/4/2015

Inhalation: May cause lung irritation; potential sensitizer

Ingestion: Swallowing small amounts of this material during normal handling is unlikely and is not likely to cause harmful effects. Swallowing large amounts may be harmful.

Reproductive or genetic defect hazard. See section 2 for further details.

Eyes Causes serious eye irritation.

5. Fire-fighting measures

5.1. Extinguishing media

Water fog, Carbon Dioxide, Dry Chemical

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: High heat and fire may produce carbon dioxide, carbon monoxide, and oxides of nitrogen.
Avoid breathing dust / fume / gas / mist / vapors / spray.

5.3. Advice for fire-fighters

Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

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

For major spills call Raven Industries (1-605-336-2750).

Clean up should only be performed by trained personnel. People dealing with major spillages should wear full protective clothing including appropriate respiratory protection. Evacuate the area. Prevent further leakage, spillage or entry into drains.



Safety Data Sheet
POUR-N-SEAL Component A
SDS Revision Date: 5/4/2015

7. Handling and storage

7.1. Precautions for safe handling

Avoid breathing aerosols, mists and vapors. Avoid contact with skin and eyes.

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

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: Water, amines, strong bases, alcohols, metal compounds and surface-active materials

If container is exposed to high heat, it can be pressurized and possibly rupture explosively. Keep the container tightly closed and in a cool, well-ventilated place.

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
0002426-08-6	Oxirane, (butoxymethyl)-	OSHA	TWA 50 ppm (270 mg/m ³)
		ACGIH	TWA: 3 ppm Skin, S, R, Revised 2005,
		NIOSH	C 5.6 ppm (30 mg/m ³) [15-minute]
		Supplier	No Established Limit
0025068-38-6	Diglycidyl ether of bisphenol A	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0028064-14-4	Bisphenol F epoxy resin	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit



Safety Data Sheet
POUR-N-SEAL Component A
 SDS Revision Date: 5/4/2015

Carcinogen Data

CAS No.	Ingredient	Source	Value
0002426-08-6	Oxirane, (butoxymethyl)-	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;
0025068-38-6	Diglycidyl ether of bisphenol A	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;
0028064-14-4	Bisphenol F epoxy resin	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** When the product is sprayed or heated without adequate ventilation, an approved MSHA/NIOSH positive-pressure, supplied-air respirator may be required.
- Eyes** Wear safety glasses; chemical goggles (if splashing is possible).
- Skin** Protective clothing should be selected. Gloves - neoprene, nitrile rubber, butyl rubber. Thin latex disposable gloves should be avoided for repeated or long-term use.
- Engineering Controls** Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.
- 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
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Appearance	Clear Liquid
Odor	Sweet
Odor threshold	Not Measured
pH	Not available
Melting point / freezing point	Not available
Initial boiling point and boiling range	> 327°F
Flash Point	> 200°C Pensky Martin Closed Cup
Evaporation rate (Ether = 1)	Slower (Butyl Acetate = 1)
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: Not available



Safety Data Sheet
POUR-N-SEAL Component A
SDS Revision Date: 5/4/2015

Vapor pressure (Pa)	Upper Explosive Limit: Not available
Vapor Density	Not determined
Specific Gravity	Not available
Solubility in Water	1.12 @ 77°F (H ₂ O = 1)
Partition coefficient n-octanol/water (Log Kow)	Slight
Auto-ignition temperature	Not Measured
Decomposition temperature	Not available
Viscosity (cSt)	Not available
VOC Content	None

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Polymerization may occur at elevated temperatures in the presence of alkalis, tertiary amines and metal compounds.

10.2. Chemical stability

Stable under normal handling and storage conditions

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Water, amines, strong bases, alcohols, metal compounds and surface-active materials

10.6. Hazardous decomposition products

High heat and fire may produce carbon dioxide, carbon monoxide, and oxides of nitrogen.



Safety Data Sheet
POUR-N-SEAL Component A
 SDS Revision Date: 5/4/2015

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
Diglycidyl ether of bisphenol A - (25068-38-6)	> 5,000.00, Rat - Category: NA	20,000.00, Rabbit - Category: NA	No data available	No data available	No data available
Bisphenol F epoxy resin - (28064-14-4)	2,000.00, Rat - Category: 4	No data available	No data available	No data available	No data available
Oxirane, (butoxymethyl)- - (2426-08-6)	1,660.00, Rat - Category: 4	No data available	No data available	No data available	No data 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)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	2	Causes skin irritation.
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	2	Suspected of causing genetic defects.
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable



Safety Data Sheet
POUR-N-SEAL Component A
SDS Revision Date: 5/4/2015

12. Ecological information

12.1. Toxicity

Toxic to aquatic life with long lasting effects.

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Diglycidyl ether of bisphenol A - (25068-38-6)	3.10, Pimephales promelas	1.40, Daphnia magna	Not Available
Bisphenol F epoxy resin - (28064-14-4)	9.00, Oncorhynchus mykiss	9.00, Daphnia magna	Not Available
Oxirane, (butoxymethyl)- - (2426-08-6)	Not Available	3.90, Daphnia magna	Not Available

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.

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



Safety Data Sheet
POUR-N-SEAL Component A
SDS Revision Date: 5/4/2015

Table with 4 columns: Property, DOT (Domestic Surface Transportation), IMO / IMDG (Ocean Transportation), and ICAO/IATA. Rows include UN number, UN proper shipping name, Transport hazard class(es), Packing group, Environmental hazards, and Special precautions for user.

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: D2A

US EPA Tier II Hazards: Fire: No, Sudden Release of Pressure: No, Reactive: No, Immediate (Acute): Yes, Delayed (Chronic): Yes

EPCRA 311/312 Chemicals and RQs: To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.
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.



Safety Data Sheet
POUR-N-SEAL Component A
SDS Revision Date: 5/4/2015

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%):

Oxirane, (butoxymethyl)-

Pennsylvania RTK Substances (>1%):

Oxirane, (butoxymethyl)-

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:

H226 Flammable liquid and vapor.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H341 Suspected of causing genetic defects.

H351 Suspected of causing cancer.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful 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.

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. 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 that exist.

The logo for RAVEN, consisting of the word "RAVEN" in white, bold, sans-serif capital letters centered within a solid black rectangular background.

Safety Data Sheet
POUR-N-SEAL Component A
SDS Revision Date: 5/4/2015

The information presented herein is based on data considered to be accurate as of the date of preparation of this Safety Data Sheet. However, SDS may not be used as a commercial specification sheet of manufacturer or seller, and no warranty or representation, expressed or implied, is made as to the accuracy or comprehensiveness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.

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