



Safety Data Sheet
POUR-N-SEAL Component B
SDS Revision Date: 5/22/2015

1. Identification

1.1. Product identifier

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

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

Intended use Epoxy Resin Hardener
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

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

Acute Tox. 4;H302	Harmful if swallowed.
Acute Tox. 4;H312	Harmful in contact with skin.
Skin Corr. 1B;H314	Causes severe skin burns and eye damage.
Eye Dam. 1;H318	Causes serious eye damage.
Skin Sens. 1;H317	May cause an allergic skin reaction.
Repr. 2;H361F	Suspected of damaging fertility.
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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Danger

- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H361f Suspected of damaging fertility.
- 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.
- P270 Do not eat, drink or smoke when using this product.
- 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+312 IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell.
- 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.
- P308+313 IF exposed or concerned: Get medical advice / attention.
- P310 Immediately call a POISON CENTER or doctor / physician.
- P321 Specific treatment (see information on this label).



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P330 Rinse mouth.
P331 Do NOT induce vomiting.
P333+313 If skin irritation or a rash occurs: 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
Tetraethylenepentamine CAS Number: 0000112-57-2	< 2	Acute Tox. 4;H312 Acute Tox. 4;H302 Skin Corr. 1B;H314 Skin Sens. 1;H317 Aquatic Chronic 2;H411	[1]
Diethylenetriamine (DETA) CAS Number: 0000111-40-0	5-15	Acute Tox. 4;H312 Acute Tox. 4;H302 Skin Corr. 1B;H314 Skin Sens. 1;H317	[1][2]
TOFA, reaction product with TEPA CAS Number: 0068953-36-6	15-30	Eye Dam. 1;H318 Aquatic Chronic 2;H411	[1]
Diphenylolpropane CAS Number: 0000080-05-7	1.0 - 10	Repr. 2;H361f STOT SE 3;H335 Eye Dam. 1;H318 Skin Sens. 1;H317	[1]
Carbon black CAS Number: 0001333-86-4	1.0 - 10	Not Classified	[1][2]
Titanium Dioxide CAS Number: 13463-67-7	< 1	Not Classified	[1][2]
Amorphous silica, hydrophobic CAS Number: 67762-90-7	< 1	Not Classified	[1]
Synthetic Amorphous Silica CAS Number: 112926-00-8	40-60	Not Classified	[1]

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.



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[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 conscious, give large amounts of water. If the material is swallowed, get immediate medical attention or advice. Do Not induce vomiting.

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

- Overview** **Inhalation:** May cause lung irritation; potential sensitizer
See section 2 for further details.
- Eyes** Causes serious eye damage.
- Skin** Harmful in contact with skin. May cause an allergic skin reaction. Causes severe skin burns and eye damage.
- Ingestion** Harmful if swallowed.

5. Fire-fighting measures

5.1. Extinguishing media

Water spray, dry chemical, alcohol foam, carbon dioxide

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Oxides of carbon and nitrogen, Aldehydes
Avoid breathing dust / fume / gas / mist / vapors / spray.

5.3. Advice for fire-fighters



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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.

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: Strong oxidizing agents

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.



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8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0000080-05-7	Diphenylolpropane	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0000111-40-0	Diethylenetriamine (DETA)	OSHA	No Established Limit
		ACGIH	TWA: 1 ppmSkin, S
		NIOSH	TWA 1 ppm (4 mg/m3) [skin]
		Supplier	No Established Limit
0000112-57-2	Tetraethylenepentamine	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0001333-86-4	Carbon black	OSHA	TWA 3.5 mg/m3
		ACGIH	TWA: 3 mg/m32B, Revised 2011,
		NIOSH	TWA 3.5 mg/m3 Ca TWA 0.1 mg PAHs/m3 [in presence of polycyclic aromatic hydrocarbons (PAHs)]
		Supplier	No Established Limit
0068953-36-6	TOFA, reaction product with TEPA	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit



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Carcinogen Data

CAS No.	Ingredient	Source	Value
0000080-05-7	Diphenylolpropane	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;
0000111-40-0	Diethylenetriamine (DETA)	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;
0000112-57-2	Tetraethylenepentamine	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;
0001333-86-4	Carbon black	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: Yes; Group 3: No; Group 4: No;
0068953-36-6	TOFA, reaction product with TEPA	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;
13463-67-7	Titanium Dioxide	OSHA	Not Established
		NTP	Not Established
		IARC	Not Established
67762-90-7	Amorphous silica, hydrophobic	OSHA	Not Established
		NTP	Not Established
		IARC	Not Established
112926-00-8	Synthetic Amorphous Silica	OSHA	Not Established
		NTP	Not Established
		IARC	Not Established

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).



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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

Appearance	Slightly Viscous Liquid
Odor	Sweet-smelling gel
Odor threshold	Not determined
pH	Not available
Melting point / freezing point	Not available
Initial boiling point and boiling range	Not determined
Flash Point	> 383°F Pensky Martin Closed Cup
Evaporation rate (Ether = 1)	Not determined
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: Not available Upper Explosive Limit: Not available
Vapor pressure (Pa)	1.0 mmHg @ 180°F
Vapor Density	Not available
Specific Gravity	1.20 @ 77°F
Solubility in Water	Slight
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity (cSt)	Not available
VOC Content	None

9.2. Other information
No other relevant information.



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10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Elevated temperatures; strong acids or bases in bulk

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

Oxides of carbon and nitrogen, Aldehydes

11. Toxicological information

Acute toxicity

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
Tetraethylenepentamine - (112-57-2)	2,140.00, Rat - Category: 5	No data available	No data available	No data available	No data available
Diethylenetriamine (DETA) - (111-40-0)	1,080.00, Rat - Category: 4	1,090.00, Rabbit - Category: 4	No data available	No data available	No data available
TOFA, reaction product with TEPA - (68953-36-6)	2,000.00, Rat - Category: 4	No data available	No data available	No data available	No data available
Diphenylolpropane - (80-05-7)	5,000.00, Rat - Category: 5	3,000.00, Rabbit - Category: 5	No data available	No data available	No data available
Carbon black - (1333-86-4)	8,000.00, Rat - Category: NA	No data available	No data available	No data available	No data available
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
Titanium dioxide (13463-67-7)	10,000.00 Rat - Category: NA	10,000.00 – Rabbit - Category: NA	No data available	No data available	No data available
Amorphous silica hydrophobic (67762-90-7)	1,000.00, Rat - Category: 4	2,000.00, Rat - Category: 4	No data available	No data available	No data available



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Synthetic Amorphous Silica (112926-00-8)	No data available	No data available	No data available	No data available	No data available
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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)	4	Harmful if swallowed.
Acute toxicity (dermal)	4	Harmful in contact with skin.
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	1B	Causes severe skin burns and eye damage.
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization	---	Not Applicable
Skin sensitization	1	May cause an allergic skin reaction.
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	2	Suspected of damaging fertility.
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.

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
Tetraethylenepentamine - (112-57-2)	420.00, Poecilia reticulata	24.00, Daphnia magna	2.00 (72 hr), Pseudokirchneriella subcapitata
Diethylenetriamine (DETA) - (111-40-0)	1,014.00, Poecilia reticulata	53.50, Daphnia magna	345.60 (96 hr), Pseudokirchneriella subcapitata
TOFA, reaction product with TEPA - (68953-36-6)	9.00, Fish (Piscis)	9.00, Daphnia magna	9.00 (72 hr), Algae
Diphenylolpropane - (80-05-7)	4.60, Pimephales promelas	7.75, Daphnia magna	2.73 (96 hr), Pseudokirchneriella subcapitata



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Carbon black - (1333-86-4)	1,000.00, Danio rerio	5,600.00, Daphnia magna	10,000.00 (72 hr), Scenedesmus subspicatus
Titanium dioxide (13463-67-7)	1,000.00, Fundulus heteroclitus	5.50, Daphnia magna	5.83 (72 hr), Pseudokirchneriella subcapitata
Amorphous silica, hydrophobic (67762-90-7)	Not available	Not available	Not available
Synthetic Amorphous Silica (112926-00-8)	Not available	Not available	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

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



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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 E

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.

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:
Diphenylolpropane

Proposition 65 - Carcinogens (>0.0%):
Carbon black

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%):
Diphenylolpropane
Carbon black
Diethylenetriamine (DETA)
Tetraethylenepentamine
Synthetic Amorphous Silica

Pennsylvania RTK Substances (>1%):
Diphenylolpropane
Carbon black



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Diethylenetriamine (DETA)
Tetraethylenepentamine
Synthetic Amorphous Silica

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:

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

H361f Suspected of damaging fertility.

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.

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 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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