SAFETY DATA SHEET



Section 4 Identif	liastion
Section 1. Identif	ication
Product Name/Code	: R5861
Product description	: Formulated Acrylic Emulsion Polymer
Product type	: Liquid
Relevant identified uses of	the substance or mixture and uses advised against
Not applicable	
Supplier's details	: Essential Polymers 28391 Essential Road P.O. Box 12 Merton, WI 53089 Phone: 262-538-0091
Emergency telephone number (with hours of operation)	: 800-843-6174 (24 Hours)
Section 2. Hazard	ds identification
OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	: SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B
	Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 30.7% There is no toxicity data available for the polymer in this product, which is exempt and categorized in a low concern functional group under the EPA's Toxic Substances Control Act (TSCA).
GHS label elements	
Signal word	: Warning
Hazard statements	: Causes eye irritation.
Precautionary statements	
General	: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
Prevention	: Wear eye or face protection. Wash hands thoroughly after handling.
Response	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
Storage	: Not applicable
Disposal	: Not applicable
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture Other means of identification

: Mixture

: Not available

CAS number/other identifiers

CAS number

: Not applicable

Ingredient name	%	CAS number
2-(2-ethoxyethoxy)ethanol	5 - 10	111-90-0
2-(2-methoxyethoxy)ethanol	1 - 5	111-77-3
tris(2-butoxyethyl) phosphate	1 - 5	78-51-3
(2-methoxymethylethoxy)propanol	0 - 1	34590-94-8

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms	/effects, acute and delayed
Potential acute health eff	<u>ects</u>
Eye contact	: Causes eye irritation.
Inhalation	: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	: No known significant effects or critical hazards.
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Section 4. First aid measures

Ingestion	: May be irritating to mouth, throat and stomach.
Over-exposure signs/sy	r <u>mptoms</u>
Eye contact	: Adverse symptoms may include the following: irritation watering redness
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.
Indication of immediate r	nedical attention and special treatment needed, if necessary
Notes to physician	: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: No specific treatment.

: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (section 8)

Protection of first-aiders

Section 5. Fire-fighting measures

Extinguishing media	
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: None known.
Specific hazards arising from the chemical	: In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides metal oxide/oxides
Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protect For non-emergency personnel	: No action sl Evacuate su entering. D Provide ade	hall be taken involving ar urrounding areas. Keep to not touch or walk throu equate ventilation. Wear	y personal risk or without unnecessary and unprote gh spilled material. Avoid appropriate respirator wh	cted perso d breathing ien ventila	onnel from g vapor or	
For emergency responders	inadequate. : If specialise	Put on appropriate persed clothing is required to a on suitable and unsuitable	sonal protective equipmer deal with the spillage, take ble materials. See also th	nt. e note of a	any inform	
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Section 6. Accidental release measures

Environmental precautions	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods and materials for co	ontainment and cleaning up
Small spill	: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling	9	
Protective measures	:	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	:	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name 2-(2-ethoxyethoxy)ethanol			Exposure limits AIHA WEEL (United States, 10/2011).				
(2-methoxymethylethoxy)propanol			ACGIH TLV (United States, 6/2013).				
(, , , ,			Absorbed through skin.				
			TWA: 100 ppm 8 h	ours.			
				TWA: 606 mg/m ³ 8 hours.			
			STEL: 150 ppm 15	minutes.			
			STEL: 909 mg/m ³	15 minutes.			
			OSHA PEL 1989 (U	nited State	es, 3/1989)).	
			Absorbed through	skin.			
l							
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Section 8. Exposure controls/personal protection

TWA: 100 ppm 8 hours.
TWA: 600 mg/m ³ 8 hours.
STEL: 150 ppm 15 minutes.
STEL: 900 mg/m ³ 15 minutes.
NIOSH REL (United States, 10/2013).
Absorbed through skin.
TWA: 100 ppm 10 hours.
TWA: 600 mg/m ³ 10 hours.
STEL: 150 ppm 15 minutes.
STEL: 900 mg/m ³ 15 minutes.
OSHA PEL (United States, 2/2013).
Absorbed through skin.
TWA: 100 ppm 8 hours.
TWA: 600 mg/m ³ 8 hours.

Appropriate engineering controls	1	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure	:	Emissions from ventilation or work process equipment should be checked to ensure
controls		they comply with the requirements of environmental protection legislation. In some

they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection meas	lires
Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
Skin protection	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	 Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected

ould be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

<u>Appearance</u>	
Physical state	: Liquid
Color	: Milky White
Odor	: Bland
Odor threshold	: Not available
рН	: 8 to 9
Melting point	: 0°C (32°F)
Boiling point	: 100°C (212°F)
Flash point	: Closed cup: >93.334°C (>200°F)
Evaporation rate	: Not available
Flammability (solid, gas)	: Not available
Lower and upper explosive (flammable) limits	: Not available
Vapor pressure	: <4 kPa (<30 mm Hg) [room temperature]
Vapor density	: <1 [Air = 1]
Specific gravity	: 1.06 g/cm ³
Solubility	: Not available
Partition coefficient: n- octanol/water	: Not available
Auto-ignition temperature	: Not available
Viscosity	: Not available
VOC content	: 2.3 lbs./gals.
VOCs are calculated following the requirements un	nder 40 CFR, Part 59, Subpart C for Consumer Products and Subpart D for Architectural Coatings.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-(2-ethoxyethoxy)ethanol	LD50 Oral	Rat	7500 mg/kg	-
2-(2-methoxyethoxy)ethanol	LD50 Dermal	Rabbit	9404 mg/kg	-
tris(2-butoxyethyl) phosphate	LD50 Oral	Rat	3 g/kg	-
(2-methoxymethylethoxy) propanol	LD50 Dermal	Rabbit	9500 mg/kg	-
	LD50 Oral	Rat	5135 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-(2-ethoxyethoxy)ethanol	Eyes - Mild irritant	Rabbit	-	125 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	milligrams 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
2-(2-methoxyethoxy)ethanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	500 milligrams	-
tris(2-butoxyethyl) phosphate	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
(2-methoxymethylethoxy) propanol	Eyes - Mild irritant	Human	-	8 milligrams	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

Sensitization

Not available

Mutagenicity

Not available

Carcinogenicity

Not available

Reproductive toxicity

Not available

Teratogenicity

Not available

Specific target organ toxicity (single exposure)

Not available

Specific target organ toxicity (repeated exposure)

Not available

Aspiration hazard

Not available

Section 11. Toxicological information

Information on the likely routes of exposure	: Not available
Potential acute health effects	<u>b</u>
Eye contact	: Causes eye irritation.
Inhalation	: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: May be irritating to mouth, throat and stomach.
Symptoms related to the phy	sical, chemical and toxicological characteristics
Eye contact	: Adverse symptoms may include the following: irritation watering redness
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.
<u>Delayed and immediate effec</u> <u>Short term exposure</u> Potential immediate	ets and also chronic effects from short and long term exposure : Not available
effects	
Potential delayed effects	: Not available
Long term exposure Potential immediate effects	: Not available
Potential delayed effects	: Not available
Potential chronic health effe Not available	ects
General Carcinogenicity Mutagenicity Teratogenicity Developmental effects Fertility effects	 No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	162443.2 mg/kg

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Section 12. Ecological information

Product/ingredient name	Result	Species	Exposure
2-(2-ethoxyethoxy)ethanol	Acute LC50 3340000 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 6010000 µg/l Fresh water	Fish - Ictalurus punctatus	96 hours
2-(2-methoxyethoxy)ethanol	Acute EC50 930 ppm Fresh water	Daphnia - Daphnia magna	48 hours
,	Acute LC50 960 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
tris(2-butoxyethyl) phosphate	Acute LC50 11200 µg/l Fresh water	Fish - Pimephales promelas	96 hours

Persistence and degradability

Not available

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
2-(2-ethoxyethoxy)ethanol	-0.54	-	low
2-(2-methoxyethoxy)ethanol	-0.47	-	low
tris(2-butoxyethyl) phosphate	3.75	5.8	low
(2-methoxymethylethoxy)	0.004	-	low
propanol			

Mobility in soil

Soil/water partition	: Not available
coefficient (Koc)	

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	IMDG	IATA		
UN number	UN3082	UN3082	UN3082		
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N. O.S. (dibutyl phthalate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N. O.S. (dibutyl phthalate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (dibutyl phthalate)		
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R3001				
Section 14. Transport information				
Transport hazard class(es)	9	9	9	
Packing group	III			
Environmental hazards	Yes.	Yes.	Yes.	
Additional information	Reportable quantity 312.5 lbs / 141.88 kg [35. 358 gal / 133.84 L] The classification of the product is due solely to the presence of one or more US DOT-listed 'Hazardous substances' that are subject to reportable quantity requirements and only applies to shipments of packages greater than, or equal to, the product reportable quantity. Package sizes less than the product reportable quantity are not regulated as hazardous materials.	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.	

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according : Not available to Annex II of MARPOL 73/78 and the IBC Code

Section 15. Regulatory information

U.S. Federal regulations : United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act Section 112	: Listed			
(b) Hazardous Air				
Pollutants (HAPs)				
<u>SARA 311/312</u>				
Classification	: Immediate (acute) health hazard			
Composition/information on ingredients				

Section 15. Regulatory information

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
2-(2-ethoxyethoxy)ethanol	5 - 10	No.	No.	No.	Yes.	No.
2-(2-methoxyethoxy)ethanol	1 - 5	Yes.	No.	No.	Yes.	No.
tris(2-butoxyethyl) phosphate	1 - 5	No.	No.	No.	Yes.	No.
(2-methoxymethylethoxy)propanol	0 - 1	Yes.	No.	No.	Yes.	No.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	diammonium zinc biscarbonate dibutyl phthalate	40861-29-8 84-74-2	5.4 3.3 3.2 2.9

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Max acceptable dosage
dibutyl phthalate	No.	Yes.	No.	Yes.

International regulations

Canada inventory

: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)



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Section 16. Other information

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

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Key to abbreviations	 ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Internediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations
References	: Not available

Indicates information that has changed from previously issued version.

Notice to reader

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.