

Section 1. Identification

Product name : PERFORMATHOX™ 420 ETHOXYLATE
™ a trademark of Baker Hughes Incorporated.

Product code : 25333415

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

Identified uses : Numerous uses.

Print date : 2/5/2020

Validation date : 2/5/2020

Version : 2

Supplier's details : Baker Petrolite LLC
12645 W. Airport Blvd.
Sugar Land, TX 77478
For Product Information/SDSs Call: 800-231-3606
(8:00 a.m.-5:00 p.m. CST, Monday - Friday)

Emergency telephone number (with hours of operation) : CHEMTREC: 800-424-9300 (U.S. 24 hour)
Baker Petrolite: 800-231-3606 (North America 24 hour)
CHEMTREC Int'l 01-703-527-3887 (International 24 hour)

Section 2. Hazards 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 : COMBUSTIBLE DUSTS
AQUATIC HAZARD (ACUTE) - Category 2

GHS label elements

Signal word :  Warning

Hazard statements : May form combustible dust concentrations in air.
Toxic to aquatic life.

Precautionary statements

Prevention : Avoid release to the environment.

Response : Not applicable.

Storage : Not applicable.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements :  Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent dust accumulation.

Hazards not otherwise classified :  None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
>14 Alcohols ethoxylated *	80 - 85	251553-55-6
Ethene homopolymer	15 - 20	9002-88-4

Additional information

* In Canada, the CAS Number for this chemical is 139626-71-4. In Korea, the CAS Number for this chemical is 97953-22-5.

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. Continue to rinse for at least 10 minutes. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- 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. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.
- 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. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. 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. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
- Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : irritation, redness
- Inhalation** : respiratory tract irritation, coughing
- Skin contact** : No specific data.
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : 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.

Section 4. First aid measures

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical powder.
- Unsuitable extinguishing media** : Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
- Specific hazards arising from the chemical** : May form explosible dust-air mixture if dispersed. This material is toxic to aquatic life. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : carbon dioxide, carbon monoxide
- 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- 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.
- Remark** : As with most solid particulate organic materials, high concentrations of dusts from this product suspended in air are an explosion hazard in the presence of sparks, flames, and heat. Do not allow dust to accumulate on equipment and surfaces where this product is used. In the National Fire Protection Association (NFPA) Code 499, a "combustible dust" is any finely divided solid material 420 microns or less in diameter that presents a fire or explosion hazard when dispersed in air. This product would be a Group G combustible dust, but there is no Layer or Cloud Ignition Temperature available for it. When there is the potential of a dust explosion in a use location, the proper electrical equipment and installation should be used.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- 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). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

- Small spill** : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

- Large spill** : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. To clean the floor and all objects contaminated by this material, use detergent solution. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Avoid release to the environment. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. 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 a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. 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. See Section 10 for incompatible materials before handling or use.

Additional information

Packaged material (boxes and bags) should be stored at temperatures below 48.9°C (120°F). Storage above that temperature may lead to degradation of the product and the generation of low molecular weight organic acids, glycols, and other oxidation products. These products, especially those with higher ethoxylate content, may absorb water and should not be stored in high humidity areas. When high temperatures and high humidity are avoided, this product has an expiration date of one year from the date of manufacture. The expiration date can be extended for additional one year intervals if the batch is recertified by Baker Petrolite Polymers Quality Assurance. These products should not be stored in the molten state due to the possibility of degradation as described above. If these products are melted for use, the time that they are heated above the melting temperature should be kept to a minimum. A nitrogen atmosphere will help minimize degradation. Care must be taken to avoid burns due to skin contact with the molten material. Good hygiene practices should always be followed when handling the material.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
 >14 Alcohols ethoxylated * Ethene homopolymer	ACGIH TLV (United States). TWA: 10 mg/m³ Form: Inhalable fraction. TWA: 3 mg/m³ Form: Respirable fraction OSHA PEL (United States). TWA: 5 mg/m³ Form: Respirable fraction TWA: 15 mg/m³ Form: Total dust ACGIH TLV (United States). TWA: 10 mg/m³ 8 hours. Form: Inhalable fraction. TWA: 3 mg/m³ 8 hours. Form: Respirable fraction OSHA PEL (United States). TWA: 5 mg/m³ 8 hours. Form: Respirable dust TWA: 15 mg/m³ 8 hours. Form: Total dust

Consult local authorities for acceptable exposure limits.

If OSHA permissible exposure levels are shown above they are the OSHA 1989 levels or are from subsequent OSHA regulatory actions. Although the 1989 levels have been vacated the 11th Circuit Court of Appeals, Baker Hughes recommends that these lower exposure levels be observed as reasonable worker protection.

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

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 : Wear chemical safety goggles. When transferring material wear face-shield in addition to chemical safety goggles.

Hand protection : Chemical-resistant gloves.

Skin protection : Wear long sleeves to prevent repeated or prolonged skin contact.

Respiratory protection : Use a properly fitted, particulate filter 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

Appearance

Physical state : Solid. [Pastilles.]

Color : White to tan.

Odor : Little or none.

Odor threshold : Not available.

pH : Not available.

Melting/freezing point : 85 to 98.9°C (185 to 210°F)

Boiling point : Not available.

Initial Boiling Point : Not available.

Flash point : Open cup: >175°C (>347°F) [Cleveland.]

Burning time : Not available.

Section 9. Physical and chemical properties

Burning rate	: Not available.
Evaporation rate	: Not available.
Flammability (solid, gas)	: As with most solid particulate organic materials, high concentrations of dusts from this product suspended in air are an explosion hazard in the presence of sparks, flames, and heat. Do not allow dust to accumulate on equipment and surfaces where this product is used. In the National Fire Protection Association (NFPA) Code 499, a "combustible dust" is any finely divided solid material 420 microns or less in diameter that presents a fire or explosion hazard when dispersed in air. This product would be a Group G combustible dust, but there is no Layer or Cloud Ignition Temperature available for it. When there is the potential of a dust explosion in a use location, the proper electrical equipment and installation should be used.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 0.96 to 0.996 (15.6°C)
Density	: 8 to 8.3 (lbs/gal)
Solubility in water	: Dispersible
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Not available.
VOC	: 0 g/l
Pour Point	: Not available.

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	: Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials. Packaged material (boxes and bags) should be stored at temperatures below 48.9°C (120°F). Storage above that temperature may lead to degradation of the product and the generation of low molecular weight organic acids, glycols, and other oxidation products. These products, especially those with higher ethoxylate content, may absorb water and should not be stored in high humidity areas. When high temperatures and high humidity are avoided, this product has an expiration date of one year from the date of manufacture. The expiration date can be extended for additional one year intervals if the batch is recertified by Baker Petrolite Polymers Quality Assurance. These products should not be stored in the molten state due to the possibility of degradation as described above. If these products are melted for use, the time that they are heated above the melting temperature should be kept to a minimum. A nitrogen atmosphere

Section 10. Stability and reactivity

will help minimize degradation. Care must be taken to avoid burns due to skin contact with the molten material. Good hygiene practices should always be followed when handling the material.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
☑ >14 Alcohols ethoxylated *	LD50 Oral	Rat	>2000 mg/kg	-
Ethene homopolymer	LD50 Oral	Rat	>3000 mg/kg	-

Irritation/Corrosion

No applicable toxicity data

Sensitization

No applicable toxicity data

Mutagenicity

No applicable toxicity data

Carcinogenicity

Product/ingredient name	OSHA	IARC	NTP
☑ Ethene homopolymer	-	3	-

Reproductive toxicity

No applicable toxicity data

Teratogenicity

No applicable toxicity data

Specific target organ toxicity (single exposure)

Not applicable.

Specific target organ toxicity (repeated exposure)

Not applicable.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Routes of entry anticipated: Dermal, Inhalation.

Potential acute health effects

- Eye contact** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
- Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Potential chronic health effects

Section 11. Toxicological information

General	: Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Additional information

Testing of similar products provided a rat oral LD50 of >2,000 mg/kg.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
PERFORMATHOX™ 420 ETHOXYLATE	Acute EC50 2.73 mg/l	Algae	72 hours
	Acute EC50 9.1 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 132 mg/l	Fish	96 hours

Persistence and degradability

Not available.

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

Additional information

This product would be expected to biodegrade slowly, depending upon the conditions to which it is exposed. Under OECD Method 310D, the biodegradability for a similar material was 6% after five days.

Section 13. Disposal considerations

Disposal methods :  Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.

Additional information

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 to Annex II of MARPOL and the IBC Code : Not available.

DOT Reportable Quantity : Not applicable.

Marine pollutant : Not available.

North-America NAERG : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 5(e) substance consent order:** Alcohols, C>14, ethoxylated
TSCA 12(b) one-time export: Alcohols, C>14, ethoxylated
TSCA 12(b) annual export notification: No products were found.
United States inventory (TSCA 8b): All components are listed or exempted.
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: No products were found.

United States - Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) :

List name	Status	Ingredient name	Name on list	Conc.
None of the components are listed.				

SARA 302/304 : No products were found.

SARA 311/312

Classification : Fire hazard

SARA 313

Supplier notification : No products were found.

California Prop. 65

N/A

Canada

Canada (CEPA DSL): : All components are listed or exempted.

International regulations**National inventory**

Australia : ☒ Not determined.

China : ☒ All components are listed or exempted.

Japan : ☒ **Japan inventory (ENCS):** All components are listed or exempted.
Japan inventory (ISHL): Not determined.

New Zealand : ☒ All components are listed or exempted.

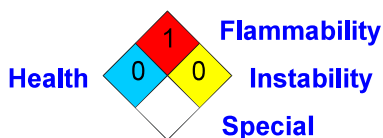
Philippines : ☒ All components are listed or exempted.

Republic of Korea : ☒ All components are listed or exempted.

Taiwan : ☒ All components are listed or exempted.

Additional information

This product meets the requirements of the following U.S.A. food additive regulations: 21 CFR § 175.105. A component of this product is subject to a Consent Order promulgated under Section 5(e) of TSCA (Toxic Substance Control Act). The restriction is directed toward manufacture only. There are no restrictions on distribution or use of the material.

Section 16. Other information**National Fire Protection Association (U.S.A.)****History**

Date of printing : 2/5/2020

☒ Indicates information that has changed from previously issued version.

Notice to reader

NOTE: The information on this SDS is based on data which is considered to be accurate. Baker Hughes, however, makes no guarantees or warranty, either expressed or implied of the accuracy or completeness of this information.

The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of this product.

This SDS was prepared and is to be used for this product. If the product is used as a component in another product, this SDS information may not be applicable.

Because it has become common for purchasers of our products to file patents for specific end uses of our products, Baker Hughes advises its customers to research their particular end use for possible intellectual property issues with respect to third party patents.