

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations SDS ID: 6164219U

Issue date: 10/13/2016 Revision date: 12/18/2023 Version: 1.1

SECTION 1: Identification

1.1. Identification

Product form : Substance

Substance name : Potassium perfluorooctanesulfonate

Chemical name : potassium perfluorooctanesulfonate, potassium heptadecafluorooctane-1-sulfonate

CAS-No. : 2795-39-3
Product code : 6164-2-19U
Formula : C8F17KO3S

Synonyms : Perfluorooctanesulfonic acid, potassium salt

Other means of identification : MFCD00066407

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Laboratory chemicals

Manufacture of substances

Scientific research and development

1.3. Supplier

SynQuest Laboratories, Inc. Inc.

P.O. Box 309

Alachua, FL, Alachua, 32615 United States of America

T (386) 462-0788 - F (386) 462-7097

info@synquestlabs.com - www.synquestlabs.com

1.4. Emergency telephone number

Emergency number : (844) 523-4086 (3E Company - Account 10069)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (oral) Category 3	H301	Toxic if swallowed
Acute toxicity (inhalation) Category 4	H332	Harmful if inhaled
Skin corrosion/irritation Category 2	H315	Causes skin irritation
Serious eye damage/eye irritation Category 2A	H319	Causes serious eye irritation
Carcinogenicity Category 2	H351	Suspected of causing cancer
Reproductive toxicity Category 1B	H360	May damage fertility or the unborn child
Reproductive toxicity, Additional category, Effects on or via lactation	H362	May cause harm to breast-fed children
Specific target organ toxicity – Single exposure, Category 3,	H335	May cause respiratory irritation
Respiratory tract irritation		
Specific target organ toxicity (repeated exposure) Category 1	H372	Causes damage to organs through prolonged or repeated
		exposure
Hazardous to the aquatic environment – Acute Hazard Category 2	H401	Toxic to aquatic life

Full text of H statements : see section 16

Hazardous to the aquatic environment – Chronic Hazard Category 2

H411

Toxic to aquatic life with long lasting effects

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2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)









Signal word (GHS US)

Precautionary statements (GHS US)

Hazard statements (GHS US)

: Danger

H301 - Toxic if swallowed H315 - Causes skin irritation

H319 - Causes serious eye irritation

H332 - Harmful if inhaled

H335 - May cause respiratory irritation H351 - Suspected of causing cancer

H360 - May damage fertility or the unborn child H362 - May cause harm to breast-fed children

H372 - Causes damage to organs through prolonged or repeated exposure

H411 - Toxic to aquatic life with long lasting effects

: P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P260 - Do not breathe dust, mist, spray.

P263 - Avoid contact during pregnancy/while nursing.

P264 - Wash skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product. P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 - If swallowed: Immediately call a poison center or doctor.

P302+P352 - If on skin: Wash with plenty of soap and water

P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

P308+P313 - If exposed or concerned: Get medical advice/attention. P312 - Call a POISON CENTER or doctor/physician if you feel unwell

P314 - Get medical advice/attention if you feel unwell.

P321 - Specific treatment (see supplemental first aid instructions on this label)

P330 - Rinse mouth.

P332+P313 - If skin irritation occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.

Pool O. II. ()

P391 - Collect spillage.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P405 - Store locked up.

P501 - Dispose of contents/container to an approved waste disposal plant

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Substance type : Mono-constituent

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Name	Product identifier	%	GHS US classification
Potassium perfluorooctanesulfonate (Main constituent)	CAS-No.: 2795-39-3	≤ 100	Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 2, H351 Repr. 1B, H360 Lact., H362 STOT SE 3, H335 STOT RE 1, H372 Aquatic Acute 2, H401 Aquatic Chronic 2, H411

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Move the affected personnel away from the contaminated area.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial

respiration. Get immediate medical advice/attention.

First-aid measures after skin contact : Wash with plenty of soap and water. Get immediate medical advice/attention.

First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

First-aid measures after ingestion : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth out with water. Get immediate medical advice/attention.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Alcohol resistant foam. Carbon dioxide. Dry powder. Water spray. Use extinguishing media appropriate for surrounding fire.

5.2. Specific hazards arising from the chemical

Fire hazard : Thermal decomposition generates: Carbon oxides. Hydrogen fluoride. Potassium oxides. Sulfur oxides.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : In case of fire: Evacuate area.

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Protection during firefighting

: Wear gas tight chemically protective clothing in combination with self contained breathing apparatus. For further information refer to section 8: "Exposure controls/personal protection".

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate unnecessary personnel. Ensure adequate air ventilation. Do not breathe dust.

6.1.1. For non-emergency personnel

Emergency procedures : Only qualified personnel equipped with suitable protective equipment may intervene.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer

to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak if safe to do so.

Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Minimize generation of dust. Other information : For disposal of solid materials or residues refer to section 13 : "Disposal considerations".

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Ensure good

ventilation of the work station. Do not breathe dust, mist, spray. Wear personal protective

equipment. Avoid contact with skin and eyes.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or

smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.

Storage conditions : Keep container closed when not in use.

Incompatible materials : Refer to Section 10 on Incompatible Materials.

Storage area : Store in dry, cool, well-ventilated area.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

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8.3. Individual protection measures/Personal protective equipment

Hand protection:

protective gloves. 29 CFR 1910.138: Hand Protection

Eye protection:

Chemical goggles or safety glasses. Face shield. 29 CFR 1910.133: Eye and Face Protection

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of inadequate ventilation wear respiratory protection. 29 CFR 1910.134: Respiratory Protection

Personal protective equipment symbol(s):



Color







No data available

No data available

Other information:

Safety shoes. 29 CFR 1910.136: Foot Protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Odor No data available Odor threshold No data available : No data available рΗ Melting point : 277 - 280 °C Freezing point : No data available Boiling point : No data available Flash point : No data available Relative evaporation rate (butyl acetate=1) : No data available Flammability (solid, gas) No data available Vapor pressure No data available Relative vapor density at 20 °C No data available Relative density No data available Molecular mass 538.22 g/mol Solubility : No data available Partition coefficient n-octanol/water (Log Pow) : No data available Auto-ignition temperature : No data available Decomposition temperature : No data available Viscosity, kinematic : No data available No data available Viscosity, dynamic No data available **Explosion limits** Explosive properties No data available

9.2. Other information

Oxidizing properties

No additional information available

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SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Keep away from heat, sparks and flame.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition products in case of fire, see Section 5.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Toxic if swallowed.
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Harmful if inhaled.

assium perfluorooctanesulfonate (2795-39-3)			
199 – 318 mg/kg			
> 5000 mg/kg			
199 mg/kg body weight			
4500 ppmV/4h			
11 mg/l/4h			
1.5 mg/l/4h			

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitization : Not classified Germ cell mutagenicity : Not classified

Carcinogenicity : Suspected of causing cancer.

Reproductive toxicity : May damage fertility or the unborn child. May cause harm to breast-fed children.

STOT-single exposure : May cause respiratory irritation.

STOT-repeated exposure : Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified Viscosity, kinematic : No data available

Symptoms/effects : The most important known symptoms and effects are described in the labelling (see section 2.2)

and/or in section 11.

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SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

Potassium perfluorooctanesulfonate (2795-39-3)

Persistence and degradability

Not readily biodegradable. May cause long-term adverse effects in the environment. PBT - Persistent, Bioaccumulative and Toxic.

12.3. Bioaccumulative potential

Potassium perfluorooctanesulfonate (2795-39-3)

Bioaccumulative potential

Perfluorinated alkanes (PFAs, "forever chemicals") are long lasting, widely used chemicals that break down slowly over time. The potential hazards of PFAs are under investigation and have not been established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods

Sewage disposal recommendations

Product/Packaging disposal recommendations

Additional information Ecological information

- : Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber.
- : See the EPA's Interim Guidance on PFAS Destruction and Disposal.
- Dispose of contents/container in accordance with licensed collector's sorting instructions.
- : Recycle the material as far as possible.
- : This material is considered to be a "Forever chemical". Prevent any possible release to the environment. Do not discharge into drains. Take all necessary measures to prevent accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems, or emergency response.

SECTION 14: Transport information

14.1. UN number

DOT NA No : UN2811 UN-No. (TDG) : Not applicable UN-No. (IMDG) : 2811

UN-No. (IATA) : 2811

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Toxic solids, organic, n.o.s.

Proper Shipping Name (TDG) : Not applicable

Proper Shipping Name (IMDG) : TOXIC SOLID, ORGANIC, N.O.S.

Proper Shipping Name (IATA) : Toxic solid, organic, n.o.s.

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14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 6.1 Hazard labels (DOT) : 6.1



TDG

Transport hazard class(es) (TDG) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : 6.1 Hazard labels (IMDG) : 6.1



IATA

Transport hazard class(es) (IATA) : 6.1 Hazard labels (IATA) : 6.1



14.4. Packing group

Packing group (DOT) : III

Packing group (TDG) : Not applicable

Packing group (IMDG) : III
Packing group (IATA) : III

14.5. Environmental hazards

Dangerous for the environment : Yes
Marine pollutant : Yes



Other information : No supplementary information available.

14.6. Special precautions for user

DOT

UN-No.(DOT) : UN2811

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DOT Special Provisions (49 CFR 172.102)

: IB8 - Authorized IBCs: Metal (11A, 11B, 11N, 21A, 21B, 21N, 31A, 31B and 31N); Rigid plastics (11H1, 11H2, 21H1, 21H2, 31H1 and 31H2); Composite (11HZ1, 11HZ2, 21HZ1, 21HZ2, 31HZ1 and 31HZ2); Fiberboard (11G); Wooden (11C, 11D and 11F); Flexible (13H1, 13H2, 13H3, 13H4, 13H5, 13L1, 13L2, 13L3, 13L4, 13M1 or 13M2).

IP3 - Flexible IBCs must be sift-proof and water-resistant or must be fitted with a sift-proof and water-resistant liner.

T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2)

TP33 - The portable tank instruction assigned for this substance applies for granular and powdered solids and for solids which are filled and discharged at temperatures above their melting point which are cooled and transported as a solid mass. Solid substances transported or offered for transport above their melting point are authorized for transportation in portable tanks conforming to the provisions of portable tank instruction T4 for solid substances of packing group III or T7 for solid substances of packing group II, unless a tank with more stringent requirements for minimum shell thickness, maximum allowable working pressure, pressure-relief devices or bottom outlets are assigned in which case the more stringent tank instruction and special provisions shall apply. Filling limits must be in accordance with portable tank special provision TP3. Solids meeting the definition of an elevated temperature material must be transported in accordance with the applicable requirements of this subchapter.

DOT Packaging Exceptions (49 CFR 173.xxx) : 153
DOT Packaging Non Bulk (49 CFR 173.xxx) : 213
DOT Packaging Bulk (49 CFR 173.xxx) : 240
DOT Quantity Limitations Passenger aircraft/rail (49 : 100 kg

CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 200 kg

CFR 175.75)

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a

passenger vessel.

TDG

Not applicable

IMDG

Special provision (IMDG) : 223, 274
Limited quantities (IMDG) : 5 kg
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : P002
IBC packing instructions (IMDG) : IBC08
IBC special provisions (IMDG) : B3
Tank instructions (IMDG) : T1
Tank special provisions (IMDG) : T933

EmS-No. (Fire) : F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE EmS-No. (Spillage) : S-A - SPILLAGE SCHEDULE Alfa - TOXIC SUBSTANCES

Stowage category (IMDG) : A

Properties and observations (IMDG) : Toxic if swallowed, by skin contact or by inhalation.

IATA

PCA Excepted quantities (IATA) : E1 PCA Limited quantities (IATA) : Y645 PCA limited quantity max net quantity (IATA) : 10kg PCA packing instructions (IATA) 670 PCA max net quantity (IATA) 100kg 677 CAO packing instructions (IATA) 200kg CAO max net quantity (IATA) Special provision (IATA) A3, A5 ERG code (IATA) : 6L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

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SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

CANADA

Potassium perfluorooctanesulfonate (2795-39-3)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Potassium perfluorooctanesulfonate (2795-39-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Potassium perfluorooctanesulfonate (2795-39-3)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the Japanese ENCS (Existing New Chemical Substances) inventory

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

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Full text of H-	Full text of H-phrases	
H301	Toxic if swallowed	
H315	Causes skin irritation	
H319	Causes serious eye irritation	
H332	Harmful if inhaled	
H335	May cause respiratory irritation	
H351	Suspected of causing cancer	
H360	May damage fertility or the unborn child	
H362	May cause harm to breast-fed children	
H372	Causes damage to organs through prolonged or repeated exposure	
H401	Toxic to aquatic life	
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NFPA health hazard : 3 - Materials that, under emergency conditions, can cause serious or

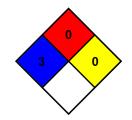
permanent injury.

NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and

sand

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire

conditions.



Hazard Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is

given

Flammability : 0 Minimal Hazard - Materials that will not burn

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT

react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Safety Data Sheet (SDS), USA

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is offered solely for your consideration, investigation, and verification. It does not represent any guarantee of the properties of the product nor that the hazard precautions or procedures described are the only ones which exist. SynQuest shall not be held liable or any damage resulting from handling or from contact with the above product.