FLUSH-IT

Safety Data Sheet

According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)
Issue date: 8/21/2026 Version: 1.0

SECTION 1 Identification

1.1. Product identifier

Product form : Mixture
Trade name : FLUSH-IT

1.2. Other means of identification

Other means of identification : AC FLUSH KIT

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Refrigerant
Restrictions on use : Reserved for industrial and professional use,Not for consumer sale or use,For use by trained, certified refrigeration technicians. (EPA Section 608)

1.4. Supplier's details

RGAS Refrigerants
2777 Allen Parkway
Suite 1185
Houston, Texas 77019
T 281-953-5550
info@rgasref.com

1.5. Emergency phone number

Emergency number : For Hazardous Materials or Dangerous Goods Incident Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night: 1-800-424-9300 (Toll Free, USA) / 703-527-3887 (Virginia, USA)
CCN 1024991
Back-up Emergency Number: +1 703-741-5970 (Washington, DC)

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation, Category 2	H315	Causes skin irritation.
Specific target organ toxicity – Single exposure, Category 3, Narcosis	H336	May cause drowsiness or dizziness.
Aspiration hazard, Category 1	H304	May be fatal if swallowed and enters airways.

Full text of H-statements: see section 16

2.2. Label elements

GHS US labelling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger
Hazard statements (GHS US) : H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H336 - May cause drowsiness or dizziness
Precautionary statements (GHS US) : Avoid breathing mist, spray, vapours.
Wash hands, forearms and face thoroughly after handling.
Use only outdoors or in a well-ventilated area.

Wear protective gloves.
If swallowed: Immediately call a poison center or doctor.
Do NOT induce vomiting.
If on skin: Wash with plenty of soap and water.
If skin irritation occurs: Get medical advice or attention.
Take off contaminated clothing and wash it before reuse.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
Call a poison center or doctor if you feel unwell.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

No additional information available

2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Pentafluoroethane	CAS-No.: 354-33-6	60 – 98	Press. Gas (Comp.), H280 Simple Asphy. 1, SIAS
Heptane (mixed isomers)	CAS-No.: 142-82-5	2 – 40	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures general : First aider: Pay attention to self-protection. Never give anything by mouth to an unconscious person. Induce artificial respiration with mask fitted with one-way valve or other suitable device but, not mouth-to-mouth. If you feel unwell, seek medical advice.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.

First-aid measures after skin contact : Gently wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth out with water. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation : May cause drowsiness or dizziness. Aspiration of the product into the lungs may cause pneumonia.
Symptoms/effects after skin contact : Irritation (itching, redness, blistering).
Symptoms/effects after eye contact : May cause eye irritation.
Symptoms/effects after ingestion : Aspiration into the lungs can occur during ingestion or vomiting and may cause lung injury.

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

Other medical advice or treatment : IF exposed or concerned: Get medical advice/attention. Following inhalation: Subsequent observance for pneumonia and lung oedema.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Alcohol-resistant foam. For small fire: Earth, sand, dry chemical powder or foam.
Unsuitable extinguishing media : Do not use water jet.

5.2. Specific hazards arising from the chemical

Fire hazard : Not flammable.
Explosion hazard : No direct explosion hazard.
Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon monoxide. Carbon dioxide. Halogenated compounds.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. Move containers from fire area if it can be done without personal risk. Use water spray or fog for cooling exposed containers. Prevent fire fighting water from entering the environment.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid all personal contact including breathing in the mist, spray, vapours. Do not take actions involving personal risks. Absorb spillage to prevent material damage. Stop leak if safe to do so. Notify authorities if product enters sewers or public waters.

For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Evacuate the danger area. If outdoors, move to an area upwind of the danger area. If possible without taking personal risks, Remove ignition sources, ventilate area.

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".
Emergency procedures : Evacuate unnecessary personnel. Ventilate spillage area. Stop leak if safe to do so.

Environmental precautions : Do not let the product reach soil, drains, sewers, or surface and ground water.

6.2. Methods and materials for containment and cleaning up

For containment : Contain with non-combustible inert absorbent.

Methods for cleaning up : Take up in non-combustible inert absorbent and place into container for disposal. Contaminated absorbent material may pose the same hazard as the spilled product. Decontaminate surfaces and equipment with water and detergent. Until a sufficient level of dilution is achieved, the decontamination water may pose the same hazards as the product. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

For further information refer to section 8: "Exposure controls/personal protection",For further information refer to section 13

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Avoid contact with skin, eyes and clothing.

7.2. Conditions for safe storage, including incompatibilities

Storage conditions : Store in a dry place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep cool. Keep container closed when not in use.

Incompatible materials : Strong oxidizers. Alkali metals.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

Heptane (mixed isomers) (142-82-5)	
USA - ACGIH® - Threshold Limit Values	
Local name	Heptane, isomers (n-Heptane)
ACGIH® TLV® TWA	400 ppm
ACGIH® TLV® STEL	500 ppm
Remark (ACGIH®)	TLV® Basis: URT irr; Lung dam; CNS impair; Ototoxicity. Notations: OTO (Ototoxicant)
Regulatory reference	ACGIH 2026
USA - OSHA - Occupational Exposure Limits	
Local name	Heptane (n-Heptane)
OSHA PEL TWA	2400 mg/m³
	500 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - NIOSH - Occupational Exposure Limits	
Local name	Heptane (n-Heptane)
NIOSH REL 10h TWA	85 ppm
NIOSH REL STEL	440 ppm [15-min]
Regulatory reference (US-NIOSH)	OSHA Annotated Table Z-1 (NIOSH Pocket Guide to Chemical Hazards (NPG))

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Use general ventilation, local exhaust ventilation, or process enclosure to keep the airborne concentrations below the permissible exposure limits. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment

Personal protective equipment:
Wear recommended personal protective equipment. Body protection should be chosen depending on activity and possible exposure.

Hand protection:
Wear protective gloves. Chemically impervious gloves as described by OSHA's hand protection regulations in 29 CFR 1910.138

Eye protection:
Safety glasses or face shield which protect from splashes.

Skin and body protection:
Protective clothing. Body protection should be chosen depending on activity and possible exposure

Respiratory protection:
In case of inadequate ventilation, wear respiratory protection. Use a positive pressure self-contained breathing apparatus (SCBA).

Personal protective equipment symbol(s):



SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	:	Liquid
Colour	:	No data available
Odour	:	No data available
Odour threshold	:	No data available
pH	:	No data available
Melting point	:	-103 °C / -153.4 °F
Freezing point	:	No data available
Boiling point	:	-48.5 °C / -55.3 °F
Flash point	:	No data available
Flammability (solid, gas)	:	Does not sustain combustion.
Vapour pressure	:	No data available
Relative vapour density at 20°C	:	No data available
Relative density	:	No data available
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
Explosive limits	:	No data available
Particle characteristics	:	No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Incompatible materials. Avoid contact with hot surfaces, heat, flames, and sparks. Avoid extreme temperatures.

10.5. Incompatible materials

Strong oxidizers. Alkali metals.

10.6. Hazardous decomposition products

Thermal decomposition generates: Carbon dioxide. Carbon monoxide. Halogenated compounds.

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified.

Heptane (mixed isomers)	
LD50 oral rat	> 5000 mg/kg
LD50 oral	5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LD50 dermal	3000 mg/kg
LC50 Inhalation - Rat	103 mg/m³
LC50 Inhalation - Rat (Vapours)	25132 ppmv

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Not classified

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

Carcinogenicity : Not classified

Reproductive toxicity : Not classified
STOT-single exposure : May cause drowsiness or dizziness.

Heptane (mixed isomers)	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure : Not classified

Heptane (mixed isomers)	
LOAEC (inhalation, rat, vapour, 90 days)	16.6 mg/l air
NOAEC (inhalation, rat, vapour, 90 days)	3.3 mg/l air

Aspiration hazard : May be fatal if swallowed and enters airways.
Symptoms/effects after inhalation : May cause drowsiness or dizziness. Aspiration of the product into the lungs may cause pneumonia.
Symptoms/effects after skin contact : Irritation (itching, redness, blistering).
Symptoms/effects after eye contact : May cause eye irritation.
Symptoms/effects after ingestion : Aspiration into the lungs can occur during ingestion or vomiting and may cause lung injury.

SECTION 12 Ecological information

12.1. Ecotoxicity

Hazardous to the aquatic environment, short–term (acute) : Very toxic to aquatic life.
Hazardous to the aquatic environment, long–term (chronic) : Very toxic to aquatic life with long lasting effects.

Pentafluoroethane	
LC50 - Fish [1]	> 81.8 mg/l
EC50 - Crustacea [1]	> 97.9 mg/l
LC50 - Fish [2]	450 mg/l
EC50 72h - Algae [1]	> 114 mg/l
EC50 72h - Algae [2]	> 118 mg/l
NOEC chronic fish	32 mg/l

Heptane (mixed isomers)	
LC50 - Fish [1]	5.738 mg/l
EC50 - Crustacea [1]	0.1 mg/l
LOEC (chronic)	0.32 mg/l
NOEC (chronic)	0.17 mg/l

12.2. Persistence and degradability

FLUSH-IT	
Persistence and degradability	Not established.

Pentafluoroethane	
Persistence and degradability	Not rapidly degradable

Heptane (mixed isomers)	
Persistence and degradability	Rapidly degradable

12.3. Bioaccumulative potential

Heptane (mixed isomers)	
Partition coefficient n-octanol/water (Log Pow)	4.66

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone : Not classified
Fluorinated greenhouse gases : No

SECTION 13 Disposal considerations

Regional waste regulation : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations : Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Disposal must be done according to official regulations.

SECTION 14 Transport information

In accordance with DOT / IMDG / IATA

DOT	IMDG	IATA
14.1. UN number		
UN3163	3163	3163
14.2. Proper Shipping Name		
Liquefied gas, n.o.s. (Ethane, 1,1,1,2,2-pentafluoro-, n-Heptane)	LIQUEFIED GAS, N.O.S. (Ethane, 1,1,1,2,2-pentafluoro-, n-Heptane)	Liquefied gas, n.o.s. (Ethane, 1,1,1,2,2-pentafluoro-, n-Heptane)
14.3. Transport hazard class(es)		
2.2	2.2	2.2
14.4. Packing group		
Not applicable	Not applicable	Not applicable
14.5. Environmental hazards		
	Dangerous for the environment: Yes Marine pollutant: Yes	
No supplementary information available		

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT
UN-No. (DOT) : UN3163
DOT Packaging Exceptions (49 CFR 173.xxx) : 306
DOT Packaging Non Bulk (49 CFR 173.xxx) : 304
DOT Packaging Bulk (49 CFR 173.xxx) : 314, 315

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	75 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	150 kg
DOT Vessel Stowage Location	:	A - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel.

IMDG

Special provisions (IMDG)	:	274, 392
Limited quantities (IMDG)	:	120 ml
Excepted quantities (IMDG)	:	E1
Packing instructions (IMDG)	:	P200
Tank instructions (IMDG)	:	T50
EmS-No. (Fire)	:	F-C - FIRE SCHEDULE Charlie - NON-FLAMMABLE GASES
EmS-No. (Spillage)	:	S-V - SPILLAGE SCHEDULE Victor - GASES (NON-FLAMMABLE, NON-TOXIC)
Stowage category (IMDG)	:	A

IATA

PCA Excepted quantities (IATA)	:	E1
PCA Limited quantities (IATA)	:	Forbidden
PCA limited quantity max net quantity (IATA)	:	Forbidden
PCA packing instructions (IATA)	:	200
PCA max net quantity (IATA)	:	75kg
CAO packing instructions (IATA)	:	200
CAO max net quantity (IATA)	:	150kg
ERG code (IATA)	:	2L

SECTION 15 Regulatory information

15.1. 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.

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

Pentafluoroethane (354-33-6)

Listed on the Canadian DSL (Domestic Substances List)

Heptane (mixed isomers) (142-82-5)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Pentafluoroethane (354-33-6)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Heptane (mixed isomers) (142-82-5)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. 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

Component	State or local regulations
Heptane (mixed isomers)(142-82-5)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16 Other Information

According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)
Issue date : 8/21/2026

Full text of hazard classes and H-statements	
H225	Highly flammable liquid and vapour
H280	Contains gas under pressure; may explode if heated
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H336	May cause drowsiness or dizziness
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
SIAS	May displace oxygen and cause rapid suffocation

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.