

SAFETY DATA SHEET

FUSE-IT®

Revision Date: 02-Mar-2023

Revision Number: 22

1. Identification

Product identifier

Product Name FUSE-IT®

Other means of identification

Hazardous Material Number: HM005844

Recommended use of the chemical and restrictions on use

Recommended Use Lost Circulation Material

Supplier details

Halliburton Energy Services
Av. Amazonas N37-29 y Villalengua Edif.,
Quito, Ecuador

Halliburton Energy Services
Carrera 7 No. 71-52, Floor 7, Torre B,
Bogotá, Colombia

Halliburton Energy Services
Avenida Principal De Santa Rita Sector
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Global Incident Response Access Code: 334305
Contract Number: 14012

2. Hazards Identification

Classification of the hazardous chemical

Not classified

Label Elements

Hazard Pictograms

Signal Word: None

Hazard Statements Not Classified

Precautionary Statements

Prevention None
Response None

Storage None
Disposal None

Contains Substances

Hydrotreated light petroleum distillate	CAS Number 64742-47-8
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5
Naphtha, hydrotreated heavy	64742-48-9

Other hazards which do not result in classification

This mixture contains substances considered to be persistent, bioaccumulating and toxic (PBT).
 This mixture contains substances considered to be very persistent and very bioaccumulating (vPvB).

3. Composition/Information on Ingredients

Product Classification: Mixture

Substances	CAS Number	PERCENT (w/w)	GHS Classification
Hydrotreated light petroleum distillate	64742-47-8	30 - 60%	Asp. Tox. 1 (H304)
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	5 - 10%	Acute Tox. 3 (H301) Eye Corr. 1 (H318) Aquatic Acute 2 (H401) Aquatic Chronic 3 (H412)
Naphtha, hydrotreated heavy	64742-48-9	1 - 5%	Skin Irrit. 2 (H315) Muta. 1 (H340) Carc. 1(H350) STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Acute 2 (H401) Flam. Liq. 4 (H227)

The exact percentage (concentration) of the composition has been withheld as proprietary.

4. First Aid Measures

Description of first aid measures

Inhalation If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

Eyes In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

Skin Wash with soap and water. Get medical attention if irritation persists.

Ingestion Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical attention.

Most important symptoms and effects, both acute and delayed

No significant hazards expected.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable extinguishing media

Suitable Extinguishing Media
 Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

None known.

Physicochemical hazards arising from the chemical

Special exposure hazards in a fire
Spills produce extremely slippery surfaces.

Special protective equipment and precautions for fire fighters

Special protective equipment for firefighters
Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures
Use appropriate protective equipment. Spills of this product are very slippery. Avoid breathing vapors. Avoid contact with skin, eyes and clothing.
See Section 8 for additional information.

Environmental precautions
Prevent from entering sewers, waterways, or low areas.

Methods and material for containment and cleaning up
Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Scoop up and remove.

7. Handling and storage

Precautions for safe handling
Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Ensure adequate ventilation. Wash hands after use. Material is slippery underfoot. Launder contaminated clothing before reuse. Use appropriate protective equipment.

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities
Store away from oxidizers. Store in a cool well ventilated area. Keep container closed when not in use. Keep from freezing. Store at temperatures between 40 and 90 F (5 and 35 C). Product has a shelf life of 12 months.

8. Exposure Controls/Personal Protection

Control parameters
Exposure Limits

Substances	CAS Number	Venezuela	Colombia	Argentina
Hydrotreated light petroleum distillate	64742-47-8	Not applicable	Not applicable	Not applicable
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	Not applicable	Not applicable	Not applicable
Naphtha, hydrotreated heavy	64742-48-9	Not applicable	Not applicable	Not applicable

Appropriate engineering controls
Engineering Controls Use in a well ventilated area.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product.

Respiratory Protection Not normally needed. But if significant exposures are possible then the following respirator is recommended:
Wear a NIOSH certified, European Standard EN 149 (FFP2/FFP3), AS/NZS 1715, or equivalent respirator when using this product.

Hand Protection Impervious rubber gloves.

Skin Protection Normal work coveralls. Rubber apron.

Eye Protection Wear safety glasses or goggles to protect against exposure.

Other Precautions None known.
Environmental Exposure Controls Do not allow material to contaminate ground water system.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical State: Liquid
Color Milky white
Odor: Aliphatic Hydrocarbon
Odor Threshold: No information available

<u>Property</u>	<u>Values</u>
<u>Remarks/ - Method</u>	
pH:	5 - 8 (0.5%)
Freezing Point / Range	< 5 °C
Melting Point / Range	No data available
Pour Point / Range	No data available
Boiling Point / Range	> 100 °C / > 212 °F
Flash Point	> 100 °C / > 212 °F (PMCC)
Evaporation rate	No data available
Vapor Pressure	2.3 kPa @ 20°C
Vapor Density	0.804 g/L @ 20°C
Specific Gravity	1.0 - 1.2
Water Solubility	Miscible with water
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition Temperature	No data available
Decomposition Temperature	> 150 °C
Viscosity	> 20.5 mm ² /s @ 40 °C
Explosive Properties	No information available
Oxidizing Properties	No information available

Other information

VOC Content (%) No data available

10. Stability and Reactivity

Reactivity

Not expected to be reactive.

Chemical stability

Stable

Possibility of hazardous reactions

Will Not Occur

Conditions to avoid

None anticipated

Incompatible materials

Strong oxidizers.

Hazardous decomposition products

Oxides of nitrogen. Carbon monoxide and carbon dioxide. Hydrogen cyanide.

11. Toxicological Information

Information on possible routes of exposure

Principle Route of Exposure Eye or skin contact, inhalation. Ingestion.

Most Important Symptoms/Effects

No significant hazards expected.

LD50 Oral: > 5000 mg/kg; (Rat)
LD50 Dermal: > 5000 mg/kg; (Rat)

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydrotreated light petroleum distillate	64742-47-8	>5000 mg/kg-bw (rat) (similar substance)	>2000 mg/kg-bw (rabbit) (similar substance)	>5.2 mg/L (rat, 4 h, vapor) (similar substance)
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	200-300 mg/kg-bw (rat)	>2000 mg/kg-bw (rabbit)	No data available
Naphtha, hydrotreated heavy	64742-48-9	> 5000 mg/kg (Rat) (similar substance)	> 1000 mg/kg (Rabbit) > 5000 mg/kg (Rabbit)	> 2.5 g/m ³ (Rat) 4h > 5.2 mg/L (Rat) (similar substance)

Immediate, delayed and chronic health effects from exposure

Inhalation None known.
Eye Contact Non-irritating to the eye (OECD 437)
Skin Contact Non-irritating to the skin
Ingestion May cause abdominal pain, vomiting, nausea, and diarrhea.

Chronic Effects/Carcinogenicity No data available to indicate product or components present at greater than 0.1% are chronic health hazards.

Substances	CAS Number	Skin corrosion/irritation
Hydrotreated light petroleum distillate	64742-47-8	Non-irritating to the skin (similar substances)
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	Non-irritating to the skin Not a dermal irritant
Naphtha, hydrotreated heavy	64742-48-9	Causes moderate skin irritation. (similar substances)

Substances	CAS Number	Serious eye damage/irritation
Hydrotreated light petroleum distillate	64742-47-8	Non-irritating to rabbit's eye (similar substances)
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	Causes severe eye irritation which may damage tissue. Causes serious eye damage (similar substances)
Naphtha, hydrotreated heavy	64742-48-9	Non-irritating to rabbit's eye (similar substances)

Substances	CAS Number	Skin Sensitization
Hydrotreated light petroleum distillate	64742-47-8	Did not cause sensitization on laboratory animals (guinea pig) (similar substances)
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	Did not cause sensitization on laboratory animals (guinea pig)
Naphtha, hydrotreated heavy	64742-48-9	Did not cause sensitization on humans or laboratory animals. (similar substances)

Substances	CAS Number	Respiratory Sensitization
Hydrotreated light petroleum distillate	64742-47-8	Based on available data, the classification criteria are not met.
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	No information available
Naphtha, hydrotreated heavy	64742-48-9	No information available

Substances	CAS Number	Mutagenic Effects
Hydrotreated light petroleum distillate	64742-47-8	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects. (similar substances)
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects. (similar substances)

oxy-, branched		
Naphtha, hydrotreated heavy	64742-48-9	Some in vivo tests have shown mutagenic effects. In vitro tests have shown mutagenic effects (similar substances)

Substances	CAS Number	Carcinogenic Effects
Hydrotreated light petroleum distillate	64742-47-8	Did not show carcinogenic effects in animal experiments (similar substances)
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydr oxy-, branched	69011-36-5	Did not show carcinogenic effects in animal experiments (similar substances)
Naphtha, hydrotreated heavy	64742-48-9	This substance is a potential carcinogen.

Substances	CAS Number	Reproductive toxicity
Hydrotreated light petroleum distillate	64742-47-8	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments. (similar substances)
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydr oxy-, branched	69011-36-5	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments.
Naphtha, hydrotreated heavy	64742-48-9	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments.

Substances	CAS Number	STOT - single exposure
Hydrotreated light petroleum distillate	64742-47-8	No significant toxicity observed in animal studies at concentration requiring classification.
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydr oxy-, branched	69011-36-5	No significant toxicity observed in animal studies at concentration requiring classification.
Naphtha, hydrotreated heavy	64742-48-9	May cause disorder and damage to the Central Nervous System (CNS)

Substances	CAS Number	STOT - repeated exposure
Hydrotreated light petroleum distillate	64742-47-8	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydr oxy-, branched	69011-36-5	No significant toxicity observed in animal studies at concentration requiring classification.
Naphtha, hydrotreated heavy	64742-48-9	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)

Substances	CAS Number	Aspiration hazard
Hydrotreated light petroleum distillate	64742-47-8	Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydr oxy-, branched	69011-36-5	Not applicable
Naphtha, hydrotreated heavy	64742-48-9	Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.

12. Ecological Information

Ecotoxicity

12.1. Toxicity

Ecotoxicity effects

Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Hydrotreated light petroleum distillate	64742-47-8	ErL50(72 h)>10000 mg/L (Skeletonema costatum)	LC50(96 h)>10000 mg/L (Scophthalmus maximus) NOELR(28 d)>1000 mg/L (fish)	No information available	LC50(48 h)>10000 mg/L (Acartia tonsa) NOELR(21 d)=1000 mg/L (Daphnia magna)
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	IC50(72 h)=1-10 mg/L (Desmodosmus subspicatus)	LC50(96 h)=1-10 mg/L (Cyprinus carpio)	No information available	EC50(48 h)=1-10 mg/L (Daphnia magna) EC50(21 d)=0.37 mg/L (Daphnia magna)

Naphtha, hydrotreated heavy	64742-48-9	EL50 (72h) 3.1 mg/L (Senastrum capricornutum)	LC50 2200 mg/L (Pimephales promelas) LL50 (96h) 8.2 mg/L (Pimphales promelas)	No information available	LC50 2.6 mg/L (Chaetogammarus marinus) EL50 (96h) 4.5 mg/L (Daphnia magna)
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Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Hydrotreated light petroleum distillate	64742-47-8	Readily biodegradable (68.1% @ 28d)
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	Readily biodegradable (> 60% @ 28d)
Naphtha, hydrotreated heavy	64742-48-9	Inherently biodegradable (57.5% @ 28d)

Bioaccumulative potential

Substances	CAS Number	Bioaccumulation
Hydrotreated light petroleum distillate	64742-47-8	No information available
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	LogPow=4.9
Naphtha, hydrotreated heavy	64742-48-9	> 6 1.0 - 8.0

Mobility in soil

Substances	CAS Number	Mobility
Hydrotreated light petroleum distillate	64742-47-8	No information available
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	No information available
Naphtha, hydrotreated heavy	64742-48-9	No information available

Other adverse effects

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

13. Disposal Considerations

Disposal methods

Disposal methods
Contaminated Packaging

Disposal should be made in accordance with federal, state, and local regulations.
Follow all applicable national or local regulations.

14. Transport Information

Transportation Information

UN Number Not restricted
UN proper shipping name: Not restricted
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable
Environmental Hazards: Not applicable

IMDG/IMO

UN Number Not restricted
UN proper shipping name: Not restricted
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable
Environmental Hazards: Not applicable

IATA/ICAO

UN Number Not restricted
UN proper shipping name: Not restricted
Transport Hazard Class(es): Not applicable

Packing Group: Not applicable
Environmental Hazards: Not applicable

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

Special precautions for user
None

15. Regulatory Information

International Agreements

Montreal Protocol - Ozone Depleting Substances:	Does not apply.
Stockholm Convention - Persistent Organic Pollutants:	Does not apply
Rotterdam Convention - Prior Informed Consent:	Does not apply.
Basel Convention - Hazardous Waste:	Does not apply.

NFPA Ratings: Health 0, Flammability 1, Reactivity 0
HMIS Ratings: Health 0, Flammability 1, Reactivity 0, PPE: C

16. Other Information

Revision Date: 02-Mar-2023
Revision Note
Update to Format

Key literature references and sources for data
www.ChemADVISOR.com/

Key or legend to abbreviations and acronyms used in the safety data sheet

bw – body weight
CAS – Chemical Abstracts Service
EC10 – Effective Concentration 10%
EC50 – Effective Concentration 50%
EEC – European Economic Community
ErC50 – Effective Concentration growth rate 50%
IBC Code – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
LC50 – Lethal Concentration 50%
LD50 – Lethal Dose 50%
LL0 – Lethal Loading 0%
LL50 – Lethal Loading 50%
MARPOL – International Convention for the Prevention of Pollution from Ships
mg/kg – milligram/kilogram
mg/L – milligram/liter
NIOSH – National Institute for Occupational Safety and Health
NOEC – No Observed Effect Concentration
NTP – National Toxicology Program
OEL – Occupational Exposure Limit
PBT – Persistent Bioaccumulative and Toxic
PC – Chemical Product category
PEL – Permissible Exposure Limit
ppm – parts per million
PROC – Process category
STEL – Short Term Exposure Limit
h - hour
d - day

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material is the sole responsibility of the user.

End of Safety Data Sheet