

Safety Data Sheet ESSCO-FLUSH

SDS Revision Date: 11/16/2016

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Identity ESSCO-FLUSH

Alternate Names

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

Intended useSee Technical Data Sheet.Application MethodSee Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name ENGINE SERVICE & SUPPLY CO.

1902 NORTH ANDREWS HIGHWAY

ODESSA, TX 79761

USA

Emergency

CHEMTREC (USA) (800) 424-9300

Customer Service: Phone: (432) 337-2386

Fax: (432) 337-7646

2. Hazard identification of the product

2.1. Classification of the substance or mixture

No applicable GHS categories.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

No applicable GHS categories.

[Prevention]:

No GHS prevention statements

[Response]:

No GHS response statements

[Storage]:

No GHS storage statements

[Disposal]:

No GHS disposal statements

3. Composition/information on ingredients

This product is considered a mixture.

| Ingredient/Chemical Designations | Weight % | GHS Classification | Notes |
|---|----------|--------------------|-------|
| Fatty acids, C5-10, esters with pentaerythritol CAS Number: 0068424-31-7 | 25 - 50 | Not classified | |
| Heptanoic acid, mixed esters with pentaerythritol and valeric acid CAS Number: 0068441-94-1 | 25 - 50 | Not classified | |

^[1] Substance classified with a health or environmental hazard.

This formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Trade secrets are allowable per paragraph (i) of 29 CFR 1910.1200 as long as specific chemical identity and exact percentage composition are available and will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i).

4. First aid measures

4.1. Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention.

Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give

artificial respiration. If unconscious place in the recovery position and obtain immediate

medical attention. Give nothing by mouth.

Eyes Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and

seek medical attention.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a

recognized skin cleanser.

Ingestion If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Overview No specific symptom data available.

See section 2 for further details if applicable.

5. Fire-fighting measures

5.1. Extinguishing media

Dry chemical, foam, carbon dioxide or water spray.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: None under normal use.

5.3. Advice for fire-fighters

In the event of fire, wear full protective clothing and NIOSH Approved Self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Move container from fire area if it can be done without risk. Use water to keep fire exposed containers cool and disperse vapors.

ERG Guide No. ----

^[2] Substance with a workplace exposure limit.

^[3] PBT-substance or vPvB-substance.

^{*}The full texts of the phrases are shown in Section 16.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Use personal protective equipment.

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Use a non-combustible material like vermiculite, sand or earth to soak up product and place in a container for later disposal.

Dike for disposal and cover with wet sand or earth.

7. Handling and storage

7.1. Precautions for safe handling

See section 2 for further details.

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Store in a cool dry place.

Keep containers tightly closed.

Incompatible materials: Incompatible with strong oxidizing agents

See section 2 for further details.

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

| CAS No. | Ingredient | Source | Value |
|--|----------------------------------|----------------------|----------------------|
| 1 | pentaerythritol | OSHA | No Established Limit |
| | | ACGIH | No Established Limit |
| | | NIOSH | No Established Limit |
| | Supplier | No Established Limit | |
| 0068441-94-1 Heptanoic acid, mixed esters with | OSHA | No Established Limit | |
| | pentaerythritol and valeric acid | ACGIH | No Established Limit |
| | | NIOSH | No Established Limit |
| | | Supplier | No Established Limit |

Carcinogen Data

| CAS No. | Ingredient | Source | Value |
|--|-----------------|--------------------------|--|
| 0068424-31-7 Fatty acids, C5-10, esters with | | OSHA | Select Carcinogen: No |
| | pentaerythritol | NTP | Known: No; Suspected: No |
| | | IARC | Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No; |
| 0068441-94-1 Heptanoic acid, mixed esters with | | OSHA | Select Carcinogen: No |
| pentaerythritol and valeric acid | NTP | Known: No; Suspected: No | |
| | | IARC | Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No; |

8.2. Exposure controls

Respiratory If workers are exposed to concentrations above the exposure limit they must use the

appropriate, certified respirators.

Eyes Safety glasses with side shields

Skin Overalls which cover the body, arms and legs should be worn. Skin should not be exposed.

All parts of the body should be washed after contact.

Engineering Controls Provide adequate ventilation. Where reasonably practicable this should be achieved by the

use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits

suitable respiratory protection must be worn.

using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

9. Physical and chemical properties

Appearance Clear and bright

Odor Mild

Odor thresholdNot MeasuredpHNot MeasuredMelting point / freezing pointNot Measured

Pour Point -43C

Initial boiling point and boiling range Not Measured

Flash Point 202C

Evaporation rate (Ether = 1) Not Measured
Flammability (solid, gas) Not Applicable

Upper/lower flammability or explosive limits Lower Explosive Limit: Not Measured

Upper Explosive Limit: Not Measured

Vapor pressure (Pa)Not MeasuredVapor DensityNot Measured

Specific Gravity 0.94

Solubility in Water

Partition coefficient n-octanol/water (Log Kow)

Auto-ignition temperature

Decomposition temperature

Viscosity (cSt)

Not Measured

Not Measured

Not Measured

Not Measured

Not Measured

Not Measured

9.2. Other information

No additional information is available.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

None known

10.5. Incompatible materials

Incompatible with strong oxidizing agents

10.6. Hazardous decomposition products

None under normal use.

11. Toxicological information

Acute toxicity

Product is safe for intended use based on the formulation, testing results and the long history of safe consumer use.

| Ingredient | Oral LD50, mg/kg | Skin LD50, mg/kg | Inhalation Vapor LD50, mg/L/4hr | Inhalation Dust/Mist LD50, mg/L/4hr | Inhalation Gas LD50, ppm |
|---|---------------------|---------------------|---------------------------------------|---|--------------------------------|
| Fatty acids, C5-10, esters with pentaerythritol - (68424-31-7) | No data available | No data available | No data available | No data available | No data available |
| Heptanoic acid, mixed esters with pentaerythritol and valeric acid - (68441-94-1) | No data available | No data available | No data available | No data available | No data available |

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

| Classification | Category | Hazard Description |
|-------------------------------|----------|--------------------|
| Acute toxicity (oral) | | Not Applicable |
| Acute toxicity (dermal) | | Not Applicable |
| Acute toxicity (inhalation) | | Not Applicable |
| Skin corrosion/irritation | | Not Applicable |
| Serious eye damage/irritation | | Not Applicable |
| Respiratory sensitization | | Not Applicable |
| Skin sensitization | | Not Applicable |
| Germ cell mutagenicity | | Not Applicable |
| Carcinogenicity | | Not Applicable |
| Reproductive toxicity | | Not Applicable |

| STOT-single exposure | Not Applicable |
|------------------------|--------------------|
| STOT-repeated exposure | Not Applicable |
| Aspiration hazard | Not Applicable |

12. Ecological information

12.1. Toxicity

Aquatic Ecotoxicity

| Ingredient | 96 hr LC50 fish, mg/l | 48 hr EC50 crustacea, mg/l | ErC50 algae, mg/l |
|---|--------------------------|-------------------------------|----------------------|
| Fatty acids, C5-10, esters with pentaerythritol - (68424-31-7) | Not Available | Not Available | Not Available |
| Heptanoic acid, mixed esters with pentaerythritol and valeric acid - (68441-94-1) | Not Available | Not Available | Not Available |

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

| | DOT (Domestic Surface Transportation) | IMO / IMDG (Ocean Transportation) | ICAO/IATA |
|----------------------------------|---|---|---------------------------|
| 14.1. UN number | Not Applicable | Not Regulated | Not Regulated |
| 14.2. UN proper shipping name | Not Regulated | Not Regulated | Not Regulated |
| 14.3. Transport hazard class(es) | DOT Hazard Class: Not Applicable DOT Label: | IMDG: Not Applicable Sub Class: Not Applicable | Air Class: Not Applicable |
| 14.4. Packing group | Not Applicable | Not Applicable | Not Applicable |

14.5. Environmental hazards

IMDG Marine Pollutant: No

14.6. Special precautions for user

No further information

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected

regulations are represented.

Toxic Substance All components of this material are either listed or exempt from listing on the TSCA

Control Act (TSCA) Inventory.

WHMIS Classification Not Regulated

US EPA Tier II Hazards Fire: No

Sudden Release of Pressure: No

Reactive: No Immediate (Acute): No

Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

N.J. RTK Substances (>1%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Penn RTK Substances (>1%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

Not Applicable

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

The information provided on the SDS is a correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

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