



EFG Extra Flush

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 03/06/2015

Supersedes:02/24/2014

Version: 1.3

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Trade name : EFG Extra Flush
Product code : EFG

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

Use of the substance/mixture : Extra Flush is used as a flushing fluid to clean the internal components of air conditioning systems.

1.3. Details of the supplier of the safety data sheet

Tire Seal, Inc.
3574 Corona Street
33461 Lake Worth, Florida - USA
T 561-582-2245 - F 561-582-1499
www.supercool.ac

1.4. Emergency telephone number

Emergency number : USA PHONE:1-800-373-7542, INT'L: 1-484-951-2432
DGA/AAG ENVIRONMENTAL CONTRACT: DGA4000-048

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Flam. Liq. 3 H226

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)



GHS02

Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : H226 - Flammable liquid and vapor
Precautionary statements (GHS-US) : P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical/ventilating/lighting equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P370+P378 - In case of fire: Use Foam, Dry powder, Carbon dioxide to extinguish
P403+P235 - Store in a well-ventilated place. Keep cool
P501 - Dispose of contents / container in accordance with local / regional / national / international regulations.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

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SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : As with any chemical, employees should thoroughly wash hands with soap and water after handling this material.
- First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest.
- First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

- Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide.
- Unsuitable extinguishing media : Water.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Flammable liquid and vapor.
- Explosion hazard : May form flammable/explosive vapor-air mixture.

5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- For containment : Try to contain spill by diking with sand or other absorbent material.
- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.
- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Proper grounding procedures to avoid static electricity should be followed.
- Storage conditions : Keep container tightly closed.
- Incompatible products : Strong bases. Strong acids.
- Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

7.3. Specific end use(s)

No additional information available

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Personal protective equipment	: Avoid all unnecessary exposure.
Materials for protective clothing	: nitrile rubber.
Hand protection	: The use of gloves impervious to the specific material handled is advised to prevent skin contact. Suggested protective material: Nitrile, 4.5 mil thickness, tested at 3.5 ml and above with no breakthrough time after 240 minutes.
Eye protection	: Chemical goggles or safety glasses.
Skin and body protection	: Apron, recommended. If clothing becomes contaminated, remove and launder before re-use.
Respiratory protection	: Normally not required. Where there is potential for airborne exposure above the exposure limit an approved air purifying respirator equipped with Type R or P95 particle filters may be used.
Other information	: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear.
Color	: Colourless to pale yellow.
Odor	: Mild orange aroma.
Odor threshold	: No data available
pH	: No data available
pH solution	: 4.5 10 % Water Dispersion
Relative evaporation rate (butyl acetate=1)	: 0.28
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 144 °C
Flash point	: 52 °C Closed Cup
Auto-ignition temperature	: ~ 237 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: 1 mm Hg @20°C
Relative vapor density at 20 °C	: No data available
Relative density	: 0.924 - 0.936 @20°C
Solubility	: Partially soluble in water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available

9.2. Other information

VOC content	: > 95 % by Volume
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SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

BHT, an antioxidant, has been added to prevent oxidation. Avoid long-term exposure to air.

10.4. Conditions to avoid

Keep away from heat, sparks and flames.

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10.5. Incompatible materials

Strong oxidizing agents and strong acids, including acidic clays, peroxides, halogens, vinyl chloride, and iodine pentafluoride.

10.6. Hazardous decomposition products

Oxides of citrus terpenes, which can result from improper storage and handling, are known to cause skin sensitization.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

ethyl lactate (97-64-3)	
LD50 oral rat	8200 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
ATE CLP (oral)	8200.000 mg/kg body weight

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Based on available data, the classification criteria are not met
Aspiration hazard	: Based on available data, the classification criteria are not met
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Product is expected to be readily biodegradable. No appreciable bioconcentration is expected in the environment. Citrus terpenes volatilize rapidly. Product is expected to be readily biodegradable. No appreciable bioconcentration is expected in the environment. Citrus terpenes volatilize rapidly.
Ecology - water	: There is no information available at this time for this product. However a spill may produce significant toxicity to aquatic organisms and ecosystems. Some studies have shown that certain bacteria and fungi have the ability to degrade terpenes, decreasing their toxicity to fish. When spilled, this product may act as oil, causing a film, sheen, emulsion or sludge at or beneath the surface of a body of water.

ethyl lactate (97-64-3)	
LC50 fish 1	100 - 1000 mg/l (96 h; Pisces)
LC50 other aquatic organisms 1	100 - 1000 mg/l (96 h)
TLM fish 1	100 - 1000,96 h; Pisces
TLM other aquatic organisms 1	100 - 1000,96 h
Threshold limit other aquatic organisms 1	100 - 1000,96 h

12.2. Persistence and degradability

EFG Extra Flush	
Persistence and degradability	Readily biodegradable.

ethyl lactate (97-64-3)	
Persistence and degradability	Readily biodegradable in water. Not established.
ThOD	1.35 g O /g substance

12.3. Bioaccumulative potential

EFG Extra Flush	
Bioaccumulative potential	Not established.

ethyl lactate (97-64-3)	
Log Pow	-0.18 (Calculated)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

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12.4. Mobility in soil

EFG Extra Flush

Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution.
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ethyl lactate (97-64-3)

Surface tension	0.028 N/m (25 °C)
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12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Incinerate or dispose of in accordance with local regulations.
Additional information : Oil soaked rags should be disposed of properly to prevent spontaneous combustion. Handle empty containers with care because residual vapors are flammable.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No.(DOT) : 2319

14.2. UN proper shipping name

Proper Shipping Name (DOT) : TERPENE HYDROCARBONS, N.O.S
Department of Transportation (DOT) Hazard Classes : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Packing group (DOT) : III - Minor Danger
DOT Packaging Exceptions (49 CFR 173.xxx) : exception §173.150(f) applies.

14.3. Additional information

Other information : The listed transportation classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptions.

Overland transport

Packing group (ADR) : III

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

EFG Extra Flush

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

EFG Extra Flush

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

EFG Extra Flush

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on ELINCS (European List of Notified Chemical Substances)
Listed on the EU NLP (No Longer Polymers) inventory

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 3	H226
Skin Irrit. 2	H315
Eye Dam. 1	H318
Skin Sens. 1	H317
STOT SE 3	H335

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Asp. Tox. 1 H304
Aquatic Acute 1 H400
Aquatic Chronic 1 H410

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

15.2.2. National regulations

EFG Extra Flush

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

15.3. US State regulations

EFG Extra Flush()

U.S. - California - Proposition 65 - Carcinogens List	No
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No

ethyl lactate (97-64-3)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
No	No	No	No	

SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

Flam. Liq. 3	Flammable liquids Category 3
H226	Flammable liquid and vapor

NFPA health hazard

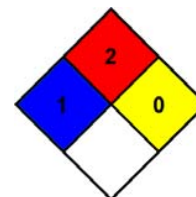
: 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard

: 2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.

NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



SDS US (GHS HazCom 2012) - TSI

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