



Safety Data Sheet SAFE-FLOC[†] I

1. Identification

1.1 Product identifier

Product name SAFE-FLOC[†] I
Product code 10277

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

Recommended Use Completion fluid additive.
Uses advised against Consumer use

1.3 Details of the supplier of the safety data sheet

Supplier
M-I L.L.C.

P.O.Box 42842
Houston, TX 77242
www.miswaco.slb.com
Telephone: 1 281-561-1511

Prepared by
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1.4 Emergency Telephone Number

Emergency telephone (24 Hour) Australia +61 2801 44558, Asia Pacific +65 3158 1074, China +86 10 5100 3039, Europe +44 (0) 1235 239 670, Middle East and Africa +44 (0) 1235 239 671, New Zealand +64 9929 1483, USA 001 281 561 1600

2. Hazards identification

2.1 Classification of the substance or mixture

GHS - Classification

Health hazards

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1

Environmental hazards

Chronic aquatic toxicity	Category 3
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Physical Hazards Not classified

2.2 Label elements



Signal word
DANGER

Hazard statements

H314 - Causes severe skin burns and eye damage
H412 - Harmful to aquatic life with long lasting effects

Precautionary statements

P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a POISON CENTER or doctor/ physician
P501 - Dispose of contents/container in accordance with local regulations.

Supplementary precautionary statements

P264 - Wash face, hands and any exposed skin thoroughly after handling
P273 - Avoid release to the environment
P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
P363 - Wash contaminated clothing before reuse

Unknown acute toxicity 16.88% of the mixture consists of ingredient(s) of unknown toxicity.

3. Composition/information on Ingredients

3.1 Substances

Not Applicable

3.2 Mixtures

Component	CAS-No	Weight % - range
Phosphate ester	Proprietary	10 - 30
2-Ethylhexanol	104-76-7	10 - 30
Nonylphenol, ethoxylated	9016-45-9	10 - 30
Diethylene glycol monoethyl ether	111-90-0	5 - 10

Comments

The product contains other ingredients which do not contribute to the overall classification.

4. First aid measures

4.1 First-Aid Measures

Inhalation	Keep at rest. Move the exposed person to fresh air at once. If breathing is difficult, (trained personnel should) give oxygen. Seek medical attention at once.
Ingestion	Do NOT induce vomiting. Rinse mouth. Risk of product entering the lungs on vomiting after ingestion. Never give anything by mouth to an unconscious person. Immediate medical attention is required.
Skin contact	Promptly wash contaminated skin with soap or mild detergent and water. Promptly remove clothing if soaked through and wash as above. Burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Chemical burns must be treated by a physician.
Eye contact	Remove contact lenses. Immediately flush eyes with water for 15 minutes while holding eyelids open. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

General advice Seek medical attention for all burns, regardless how minor they may seem. The severity of the symptoms described will vary dependant of the concentration and the length of exposure. If adverse symptoms develop, the casualty should be transferred to hospital as soon as possible.

Main symptoms

Inhalation	Please see Section 11. Toxicological Information for further information.
Ingestion	Please see Section 11. Toxicological Information for further information.
Skin contact	Please see Section 11. Toxicological Information for further information.
Eye contact	Please see Section 11. Toxicological Information for further information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use extinguishing media appropriate for surrounding material.

Extinguishing media which shall not be used for safety reasons

None known.

5.2 Special hazards arising from the substance or mixture

Unusual fire and explosion hazards

None known.

Hazardous combustion products

Carbon oxides (CO_x).

5.3 Advice for firefighters

Special protective equipment for fire-fighters

As in any fire, wear self-contained breathing apparatus and full protective gear.

Special Fire-Fighting Procedures

Containers close to fire should be removed immediately or cooled with water.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Do not get on skin or clothing. Wash thoroughly after handling. Do not breathe vapors or spray mist. Prevent further leakage or spillage if safe to do so.

6.2 Environmental precautions

The product should not be allowed to enter drains, water courses or the soil.

Environmental exposure controls

Avoid release to the environment.

6.3 Methods and materials for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see Section 13).

6.4 Reference to other sections

See section 13 for more information.

7. Handling and storage

7.1 Precautions for safe handling

Handling

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Avoid spills and splashing during use. Do not breathe vapors or spray mist.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/precautions Ensure adequate ventilation. Keep airborne concentrations below exposure limits.

Storage precautions Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls/personal protection

8.1 Control parameters

Component	ACGIH TLV	OSHA PEL
Phosphate ester	Not Determined	Not Determined
2-Ethylhexanol	Not Determined	Not Determined
Nonylphenol, ethoxylated	Not Determined	Not Determined
Diethylene glycol monoethyl ether	Not Determined	Not Determined

8.2 Exposure controls

All chemical Personal Protective Equipment (PPE) should be selected based on an assessment of both the chemical hazard present and the risk of exposure to those hazards. The PPE recommendations below are based on an assessment of the chemical hazards associated with this product. Where this product is used in a mixture with other products or fluids, additional hazards may be created and as such further assessment of risk may be required. The risk of exposure and need of respiratory protection will vary from workplace to workplace and should be assessed by the user in each situation.

Engineering measures to reduce exposure

Ensure adequate ventilation.

Personal protective equipment

Eye protection	Tightly fitting safety goggles. Face-shield.
Hand protection	Wear chemical resistant gloves such as nitrile or neoprene, Be aware that liquid may penetrate the gloves. Frequent change is advisable.
Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations, At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used.
Skin and body protection	Wear suitable protective clothing, Eye wash and emergency shower must be available at the work place.
Hygiene measures	Wash hands before eating, drinking or smoking, Remove and wash contaminated clothing before re-use.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Opaque
Color	Colorless
Odor	Sweet
Odor threshold	Not applicable

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH	1.98	
pH @ dilution		
Melting/freezing point		
Boiling point/range	> 176 °C / 350 °F	
Flash point	> 93.3 °C / > 200 °F	PMCC
Evaporation rate (BuAc =1)	No information available	
Flammability (solid, gas)	Not Applicable	
Flammability Limits in Air		
Upper flammability limit	No information available	
Lower flammability limit	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific gravity	1.014	
Bulk density	No information available	
Water solubility	Dispersible	

Solubility in other solvents	No information available
Autoignition temperature	Not Applicable
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available
Log Pow	No information available

Explosive properties	Not Applicable
Oxidizing properties	None known.

9.2 Other information

Pour point	No information available
Molecular weight	No information available
VOC content(%)	None
Density	No information available

10. Stability and reactivity

10.1 Reactivity

No specific reactivity hazards associated with this product.

10.2 Chemical stability

Stable under normal temperature conditions and recommended use.

10.3 Possibility of Hazardous Reactions

Hazardous polymerization

Hazardous polymerization does not occur.

10.4 Conditions to avoid

Check for additional information in sect. 7.

10.5 Incompatible materials

Strong oxidizing agents. Strong bases.

10.6 Hazardous decomposition products

Carbon oxides (CO_x).

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Inhalation	Causes burns. Inhaled corrosive substances can lead to a toxic edema of the lungs.
Eye contact	Causes burns. May cause irreversible damage to eyes.
Skin contact	Causes burns.
Ingestion	Causes burns.

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Phosphate ester	No data available	No data available	No data available
2-Ethylhexanol	1516 - 2774 mg/kg (Rat)	No data available	= 0.237 mg/L (Rat) 4 h
Nonylphenol, ethoxylated	= 1310 mg/kg (Rat)	= 2 mL/kg (Rabbit)	No data available
Diethylene glycol monoethyl ether	= 1920 mg/kg (Rat)	= 4200 µL/kg (Rabbit) = 6 mL/kg (Rat)	> 5240 mg/m ³ (Rat) 4 h

Component	IARC Group 1 or 2	ACGIH - Carcinogens	OSHA listed carcinogens	NTP
Phosphate ester	No data available	No data available	No data available	No data available
2-Ethylhexanol	No data available	No data available	No data available	No data available
Nonylphenol, ethoxylated	No data available	No data available	No data available	No data available
Diethylene glycol monoethyl ether	No data available	No data available	No data available	No data available

Sensitization	This product does not contain any components suspected to be sensitizing.
Mutagenic effects	This substance has no evidence of mutagenic properties.
Carcinogenicity	This substance has no evidence of carcinogenic properties.
Reproductive toxicity	None known.
Developmental toxicity	Not known to cause birth defects or have a deleterious effect on a developing fetus.
Routes of exposure	Skin contact. Inhalation. Eye contact.
Routes of entry	Skin contact. Inhalation.
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified.
Neurological effects	None known.
Target organ effects	None known.
Aspiration hazard	Not Applicable.

12. Ecological information

12.1 Toxicity

Toxicity to algae

See component information below.

Toxicity to fish

See component information below.

Toxicity to daphnia and other aquatic invertebrates

See component information below.

Component	Toxicity to fish	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates
Phosphate ester (10 - 30)	No information available	No information available	No information available

2-Ethylhexanol 104-76-7 (10 - 30)	27 - 29.5 mg/L LC50 (Pimephales promelas) = 96 h 29.7 mg/L LC50 (Pimephales promelas) = 96 h 10.0 - 33.0 mg/L LC50 (Lepomis macrochirus) = 96 h 32 - 37 mg/L LC50 (Oncorhynchus mykiss) = 96 h 7.5 mg/L LC50 (Oncorhynchus mykiss) = 96 h 5000 mg/L LC50 (Leuciscus idus) = 48 h 3.6 - 5.1 mg/L LC50 (Lepomis macrochirus) = 96 h 4.78 - 8.85 mg/L LC50 (Oncorhynchus mykiss) = 96 h 0.056 - 7.5 mg/L LC50 (Oncorhynchus mykiss) = 96 h 28.7 mg/L LC50 (Lepomis macrochirus) = 96 h	11.5 mg/L EC50 (Desmodesmus subspicatus) = 72 h 2.7 mg/L EC50 (Pseudokirchneriella subcapitata) = 96 h 8.5 mg/L EC50 (Scenedesmus quadricauda) = 168 h	39 mg/L EC50 (Daphnia magna) = 48 h 320 mg/L EC50 (Daphnia magna) = 48 h 4.78 - 8.87 mg/L EC50 (Daphnia magna) = 48 h 8.5 mg/L EC50 (Daphnia magna) = 48 h 31.8 mg/L EC50 (Daphnia magna) = 48 h
Nonylphenol, ethoxylated 9016-45-9 (10 - 30)	No information available	No information available	No information available
Diethylene glycol monoethyl ether 111-90-0 (5 - 10)	11400 - 15700 mg/L LC50 (Oncorhynchus mykiss) = 96 h 13400 mg/L LC50 (Salmo gairdneri) = 96 h 11600 - 16700 mg/L LC50 (Pimephales promelas) = 96 h 10000 mg/L LC50 (Lepomis macrochirus) = 96 h 19100 - 23900 mg/L LC50 (Lepomis macrochirus) = 96 h	No information available	3940 - 4670 mg/L EC50 (Daphnia magna) = 48 h

12.2 Persistence and degradability

No product level data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT)
This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB)

12.6 Other adverse effects.

None known.

13. Disposal considerations

13.1 Waste treatment methods

Disposal Method Disposal should be made in accordance with federal, state and local regulations.
Contaminated packaging Empty containers should be taken for local recycling, recovery or waste disposal.

14. Transport information

14.1 UN Number

UN No. (DOT)	UN1760
UN No. (TDG)	Not regulated
UN/ID No. (ADR/RID/ADN/ADG)	UN1760
UN No. (IMDG)	UN1760
UN No. (ICAO)	UN1760

14.2 Proper shipping name

CORROSIVE LIQUID, N.O.S. (Contains Phosphate Ester)

14.3 Hazard class(es)

DOT Hazard class	8
TDG Hazard class	Not regulated
ADR/RID/ADN/ADG Hazard class	8
IMDG Hazard class	8
ICAO Hazard class/division	8

14.4 Packing group

DOT Packing group	III
TDG Packing group	Not regulated
ADR/RID/ADN/ADG Packing group	III
IMDG Packing group	III
ICAO Packing group	III



14.5 Environmental hazard

No
 Marine pollutant No

14.6 Special precautions

Not Applicable

15. Regulatory information

International inventories

USA (TSCA) Complies

Canada (DSL)	Complies
European Union (EINECS and ELINCS)	Does not Comply
Philippines (PICCS)	Complies
Japan (ENCS)	Complies
China (IECSC)	Complies
Australia (AICS)	Complies
Korean (KECL)	Complies
New Zealand (NZIoC)	Complies

U.S. Federal and State Regulations

SARA 311/312 Hazard Categories

Immediate (acute) health hazard.

Component	SARA 302 / TPQs	SARA 313	CERCLA RQ
Phosphate ester	N/A	N/A	N/A
2-Ethylhexanol	N/A	N/A	N/A
Nonylphenol, ethoxylated	N/A	N/A	N/A
Diethylene glycol monoethyl ether	N/A	N/A	N/A

State Comments

Proposition 65: This product is not known to contain chemicals considered by the State of California's Safe Drinking Water and Toxic Enforcement Act of 1986 as causing cancer and/or reproductive toxicity at levels that are expected to pose a significant risk under anticipated use conditions.

Canadian Classification

This product may not be distributed or used in Canada.

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16. Other information

Supersedes date	11/Sep/2007
Revision date	10/Nov/2014
Version	4
The following sections have been revised	All sections. Updated according to GHS/CLP.
HMIS classification	
Health	3
Flammability	0
Physical hazard	0
PPE	X

†A mark of M-I L.L.C.

Disclaimer

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