



RADCOLUBE® Biobased CLP

Safety Data Sheet

MIL-PRF-63460G Biobased Cleaner, Lubricant, and Preservative for Weapons and Weapons Systems

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Version: 8.1

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

SECTION 1: Identification

1.1. Identification

Trade name	RADCOLUBE® Biobased CLP
Specification:	MIL-PRF-63460G Biobased Cleaner, Lubricant, and Preservative for Weapons and Weapons Systems
Qualification Number (Date):	AR-22-02 (22 February 2022)
Military Symbol:	CLP
NATO Code:	S-758
National Stock Number(s) (NSN):	9150-01-663-4635 (0.50 fl oz. Bottle) 9150-01-663-3879 (4 fl oz. Bottle) 9150-01-663-4643 (1 Pint Bottle with Trigger) 9150-01-663-4623 (1 Liter Bottle with Trigger) 9150-01-663-4610 (1 Gallon Plastic Bottle)

1.2. Recommended use and restrictions on use

Use of the substance/mixture:	This product is for use in cleaning, lubricating and short-term preservation of small and large caliber military weapons, operating in the temperature range of -51°C to + 71°C (-60°F to +160°F). USDA certified 73% Biobased product.
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1.3. Supplier

Radco Industries Inc.
CAGE Code 6ZS16
700 Kingsland Drive
Batavia, Illinois 60510
United States
T (630) 232-7966
www.radcoind.com

1.4. Emergency telephone number

Emergency number:	For Chemical Emergency Call CHEMTREC 24hr/day 7days/week Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)
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SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

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GHS US classification

Skin sensitization, Category 1

H317

May cause an allergic skin reaction

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US):



Signal word (GHS US):

Warning

Hazard statements (GHS US):

H317 - May cause an allergic skin reaction

Precautionary statements (GHS US):

P261 - Avoid breathing spray, vapors, mist, fume.

P272 - Contaminated work clothing must not be allowed out of the workplace.

P280 - Wear protective gloves, protective clothing.

P302+P352 - If on skin: Wash with plenty of soap and water.

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

P363 - Wash contaminated clothing before reuse.

P501 - Dispose of contents/container to an approved waste disposal plant.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Calcium alkyl naphthalene sulfonate* (Additive)	CAS-No.: Trade Secret	1 – 10	Skin Irrit. 2, H315 Eye Irrit. 2, H319
Calcium sulfonate* (Additive)	CAS-No.: Trade Secret	1 – 10	Skin Irrit. 2, H315 Eye Irrit. 2, H319
Trade Secret 2* (Additive)	CAS-No.: Trade Secret	< 5	Skin Sens. 1B, H317
Trade Secret 3* (Additive)	CAS-No.: Trade Secret	< 5	Skin Sens. 1B, H317 Aquatic Acute 3, H402 Aquatic Chronic 3, H412

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

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

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SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact: Rinse eyes with water as a precaution.

First-aid measures after ingestion: Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact: May cause an allergic skin reaction.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire: Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

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

6.1.1. For non-emergency personnel

Emergency procedures: Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.

6.1.2. 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".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Take up liquid spill into absorbent material.

Other information: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling:

Ensure good ventilation of the work station. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Wear personal protective equipment.

Hygiene measures:

Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions:

Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available
Calcium alkyl naphthalene sulfonate
No additional information available
Trade Secret 2
No additional information available
Trade Secret 3
No additional information available
Calcium sulfonate
No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Environmental exposure controls:

Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:
Protective gloves
Eye protection:
Safety glasses
Skin and body protection:
Wear suitable protective clothing

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Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Appearance:	Liquid.
Color:	light brown
Odor:	Characteristic odour
Odor threshold:	No data available
pH:	No data available
Melting point:	Not applicable
Freezing point:	≤ -69 (Pour point)
Boiling point:	No data available
Flash point:	202 °C
Relative evaporation rate (butyl acetate=1):	No data available
Flammability:	Not applicable.
Vapor pressure:	No data available
Relative vapor 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:	15.2 mm ² /s at 40°C (104°F)
Viscosity, dynamic:	No data available
Explosion limits:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available

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9.2. Other information

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.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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
Skin corrosion/irritation:	Not classified
Carcinogenicity:	Not classified
Aspiration hazard:	Not classified
Viscosity, kinematic:	15.2 mm ² /s at 40°C (104°F)
Symptoms/effects after skin contact:	May cause an allergic skin reaction.
STOT-single exposure:	Not classified
STOT-repeated exposure:	Not classified
Reproductive toxicity:	Not classified

Calcium alkyl naphthalene sulfonate

LD50 oral rat:	> 2500 mg/kg
LD50 dermal rabbit:	10000 mg/kg
LC50 Inhalation - Rat:	9000 mg/l (1 Hour)
ATE US (dermal):	10000 mg/kg body weight
ATE US (vapors):	9000 mg/l/4h

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ATE US (dust, mist):	9000 mg/l/4h
Trade Secret 3	
LD50 oral rat:	11.3 g/kg
ATE US (oral):	11300 mg/kg body weight
Calcium sulfonate	
LD50 oral rat:	> 2500 mg/kg
LD50 dermal rat:	> 10000 mg/kg
LC50 Inhalation - Rat:	> 9 mg/l
Calcium alkyl naphthalene sulfonate	
Corrosivity	Negative
Skin corrosion/irritation	Irritating to skin
Serious eye damage/irritation:	Not classified
Trade Secret 2	
Serious eye damage/irritation:	Not classified
Trade Secret 3	
Serious eye damage/irritation:	Not classified
Calcium sulfonate	
Serious eye damage/irritation:	Not classified
Calcium alkyl naphthalene sulfonate	
Serious eye damage/irritation	Irritating
Respiratory or skin sensitization:	May cause an allergic skin reaction.
Trade Secret 2	
Respiratory or skin sensitization:	May cause an allergic skin reaction.
Trade Secret 3	
Respiratory or skin sensitization:	May cause an allergic skin reaction.
Calcium sulfonate	
Respiratory or skin sensitization:	May cause an allergic skin reaction.
Calcium alkyl naphthalene sulfonate	
Germ cell mutagenicity:	Not classified

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Trade Secret 2	
Germ cell mutagenicity:	Not classified
Trade Secret 3	
Germ cell mutagenicity:	Not classified
Calcium sulfonate	
Skin sensitization	Not expected to be a skin sensitizer ((OECD 429 method))
Germ cell mutagenicity:	Not classified
Calcium sulfonate	
IARC group:	Not classified
National Toxicity Program (NTP) Status:	Not classified
Trade Secret 3	
NOAEL (animal/male, F0/P):	1000 mg/kg
NOAEL (animal/male, F1):	1000 mg/kg
Calcium sulfonate	
NOAEL (animal/male, F0/P):	893 mg/kg
Calcium sulfonate	
NOAEL (oral,rat):	95 mg/kg body weight (OECD 422 method)

SECTION 12: Ecological information**12.1. Toxicity**

Ecology - general:

The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Calcium alkyl naphthalene sulfonate	
EC50 - Crustacea [1]:	≥ 0.18 mg/l Test organisms (species): Daphnia magna
EC50 - Crustacea [2]:	> 0.27 mg/l Test organisms (species): Daphnia magna
Trade Secret 3	
LC50 - Fish [1]:	5.5 mg/l 96 Hours
EC50 - Crustacea [2]:	0.315 mg/l 48 Hours
ErC50 algae:	0.58 mg/l 72 Hours
NOEC (chronic):	> 1000 mg/l 3 Hours

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Calcium sulfonate	
EC50 - Crustacea [1]:	2.2 – 10 mg/l 21 days (Daphnia)
NOEC chronic crustacea:	10 mg/l (OECD 211 method)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Trade Secret 3	
Partition coefficient n-octanol/water (Log Kow):	> 2.47

Calcium sulfonate	
BCF - Fish [1]:	3.16 mg/l Quantitative structure-activity relationship (QSAR)
Partition coefficient n-octanol/water (Log Pow):	> 6.6

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods: Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA / ICAO / ADN / RID / ADG

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT): Not applicable
Proper Shipping Name (TDG): Not applicable
Proper Shipping Name (IMDG): Not applicable
Proper Shipping Name (IATA): Not applicable

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT): Not applicable

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TDG

Transport hazard class(es) (TDG): Not applicable

IMDG

Transport hazard class(es) (IMDG): Not applicable

IATA

Transport hazard class(es) (IATA): Not applicable

14.4. Packing group

Packing group (DOT): Not applicable

Packing group (TDG): Not applicable

Packing group (IMDG): Not applicable

Packing group (IATA): Not applicable

14.5. Environmental hazards

Other information: No supplementary information available.

14.6. Special precautions for user

DOT

No data available

TDG

No data available

IMDG

No data available

IATA

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Calcium alkyl naphthalene sulfonate		Not present	-	
Trade Secret 2		Present	Active	
Trade Secret 3		Present	Active	

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Calcium sulfonate		Present	Active	
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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

Calcium sulfonate

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US 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

SECTION 16: Other information

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

Revision date: 01/25/2024

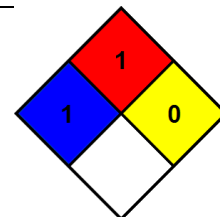
Full text of H-phrases	
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects

NFPA health hazard 1 - Materials that, under emergency conditions, can cause significant irritation.

hazard

NFPA fire hazard 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health 1 Slight Hazard - Irritation or minor reversible injury possible

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Flammability	1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)
Physical	0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Indication of changes:			
Section	Changed item	Change	Comments
1	Specification	Modified	MIL-PRF-63460F revision has changed to MIL-PRF-63460G. Also removed "Type B" designation as it is no longer supported in revision G of MIL-SPEC.

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any particular process or for any particular purpose. Such information stated is to the best of Radco's knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made to its accuracy, reliability, or completeness, purchasers, users and distributors are not relying on any promise, representation, or recommendation made by Radco, and Radco does not accept liability for any loss or damage that may occur from the use of this information. Final determination of suitability of any material is the sole responsibility of the user. All material should be used with caution to guard against unknown hazards. Although certain hazards are described herein, Radco does not guarantee that these are the only hazards that exist.