



SAFETY DATA SHEET

According to the Hazard Communication Standard, 29 CFR 1910.1200

SDS # : 083678

BIOSOL RCAM

Date of the previous version: 2015-06-12

Revision Date: 2018-09-17

Version 2

1. IDENTIFICATION

Product identifier

Product name BIOSOL RCAM

Other means of identification

Product Code(s) 083678

Number **EF1*****
Substance/mixture Mixture

Recommended use of the chemical and restrictions on use

Identified uses Lubricant. Industrial applications .

Uses advised against Do not use for any purpose other than the one for which it is intended

Details of the supplier of the safety data sheet

Supplier Address TOTAL Specialties USA, Inc.
1201 Louisiana St. Suite 1800
Houston, TX 77002
Phone: 713-483-5000

Contact Point Technical/ HSEQ

E-mail Address **ProductSafety@total.com*****

Emergency telephone number

Company Phone Number +1 (908) 862-9300
Emergency telephone +1 866 928 0789 (24h/24, 7d/7)
+1 215 207 0061 (24h/24, 7d/7)

2. HAZARDS IDENTIFICATION

Classification

Skin sensitization - **Category 1*****

Label elements

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**WARNING*****

Hazard Statements ***
May cause an allergic skin reaction***

Precautionary Statements - Prevention
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves***

Precautionary Statements - Response
Specific treatment (see supplemental first aid instruction on this label)***

Skin
IF ON SKIN: Wash with plenty of soap and water
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse***

Precautionary Statements - Disposal
Dispose of contents/ container to an approved waste disposal plant***

Hazards not otherwise classified (HNOC)
None known

Other information
Physical-Chemical Properties Contaminated surfaces will be extremely slippery.***

Environmental properties Should not be released into the environment.***

3. COMPOSITION/INFORMATION ON INGREDIENTS**Mixture**

Chemical Name	CAS-No	Weight %
Distillates (petroleum), hydrotreated light naphthenic***	64742-53-6	30-<40
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethano ***	4719-04-4	0.1-<1

Additional information Product containing mineral oil with less than 3% DMSO extract as measured by IP 346

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4. FIRST AID MEASURES

First aid measures for different exposure routes

General advice	Show this material safety data sheet to the doctor in attendance. Immediate medical attention is not required. IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.***
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.***
Skin contact	Remove contaminated clothing and shoes. Wash off immediately with soap and plenty of water. Wash contaminated clothing before reuse. If symptoms persist, call a physician.***
Inhalation	Move to fresh air. If symptoms persist, call a physician. Inhalation of high concentrations of vapor or aerosols may cause irritation of the upper respiratory tract.***
Ingestion	Do NOT induce vomiting. Rinse mouth. Drink plenty of water. Never give anything by mouth to an unconscious person. Immediate medical attention is required.***
Protection of First-aiders	Use personal protective equipment.***

Most important symptoms/effects, acute and delayed

Skin contact	May cause an allergic skin reaction. Avoid contact with skin.
Eye contact	Not classified. May cause eye irritation with susceptible persons.
Inhalation	Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system.
Ingestion	Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Symptoms	Itching. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	May cause sensitization of susceptible persons.***
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5. FIRE-FIGHTING MEASURES

<u>Suitable Extinguishing Media</u>	Foam. Carbon dioxide (CO ₂). ABC powder. Water spray.***
<u>Unsuitable Extinguishing Media</u>	Do not use a solid water stream as it may scatter and spread fire.***
<u>Special Hazard</u>	Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may

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be highly dangerous if inhaled in confined spaces or at high concentration.***

Explosion Data

Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective Equipment and Precautions for Firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Evacuate non-essential personnel.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

General Information Avoid contact with the skin and the eyes. Use personal protective equipment. Do not touch or walk through spilled material. Contaminated surfaces will be extremely slippery.***

Other information See Section 12 for additional information.

Environmental precautions

General Information Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. Try to prevent the material from entering drains or water courses. See Section 12 for additional Ecological Information.***

Methods and material for containment and cleaning up

Methods for cleaning up Dam up. Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Contain spillage, and then collect 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). Use mechanical means such as pumps and absorbent materials.***

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Ensure adequate ventilation. Wear personal protective equipment. When using, do not eat, drink or smoke. For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing.***

Hygiene measures

When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Regular cleaning of equipment, work area and clothing is recommended. Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. Use personal protective equipment as required. Wash hands before breaks and at the end of workday. Wash hands with water as a precaution. Avoid breathing vapors, mist or gas. Do not wash off with: Fuel. Solvent. Abrasive. Avoid extended and repeated contact with the skin as this may cause skin conditions, which may also be aggravated by minor injuries or by contact with soiled clothing. Avoid prolonged and repeated contact with the skin, especially with used or waste product. Do not use abrasives, solvents or fuels. Do

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not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets.***

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions

Keep out of reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep away from food, drink and animal feedingstuffs. Keep in a bonded area. Keep preferably in the original container. Otherwise reproduce all indication of the regulation label on the new container. Do not remove the hazard labels of the containers (even if they are empty). Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts. Protect from frost, heat and sunlight. Protect from moisture.***

Materials to Avoid

Strong oxidizing agents.***

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

Mineral oil mist:
USA: OSHA (PEL) TWA 5 mg/m³, NIOSH (REL) TWA 5 mg/m³, STEL 10 mg/m³, ACGIH (TLV) TWA 5 mg/m³ (highly refined)

Exposure controls

Engineering Measures

Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.***

Individual protection measures, such as personal protective equipment

General Information

Protective engineering solutions should be implemented and in use before personal protective equipment is considered.***

Eye/face protection

If splashes are likely to occur, wear: Goggles. Safety glasses with side-shields.

Skin and body protection

Wear suitable protective clothing. Protective shoes or boots.

Hand Protection

Protective gloves. Neoprene gloves. Nitrile rubber. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Hydrocarbon-proof gloves.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved

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respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures

When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Regular cleaning of equipment, work area and clothing is recommended. Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. Use personal protective equipment as required. Wash hands before breaks and at the end of workday. Wash hands with water as a precaution. Avoid breathing vapors, mist or gas. Do not wash off with: Fuel. Solvent. Abrasive. Avoid extended and repeated contact with the skin as this may cause skin conditions, which may also be aggravated by minor injuries or by contact with soiled clothing. Avoid prolonged and repeated contact with the skin, especially with used or waste product. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets.***

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties

Appearance		limpid	
Color		amber	
Physical State @20°C		liquid	
Odor		Characteristic	
Odor Threshold		No information available	
Property	Values	Remarks	Method
pH		Not applicable	
Melting point/range	> -39 °C > -38 °F		
Boiling point/boiling range		Not applicable	
Flash point	> 204 °C > 399 °F		Cleveland Open Cup (COC) ASTM D 92 Cleveland Open Cup (COC). ASTM D 92.
Evaporation rate		No information available	
Flammability Limits in Air		No information available	
upper	-	No information available	
Lower	-	No information available	
Vapor Pressure	< 0.013 kPa @ 20 °C		
Vapor density	> 5	(Air = 1)	
Relative density	< 1	@ 25 °C	ASTM D 1298
Density	< 1000 kg/m ³	@ 25 °C	ASTM D 1298
Water solubility		Forms an emulsion	
Solubility in other solvents		Soluble in many common organic solvents	
logPow		No information available	
Autoignition temperature		Not applicable***	

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Decomposition temperature		No information available	
Viscosity, kinematic	75 mm ² /s	@ 40 °C	ASTM D 445
Explosive properties	Not explosive		
Oxidizing Properties	Not applicable		
Possibility of hazardous reactions	Not applicable		
Other information			
Specific Gravity	< 1	@ 25 °C	
Freezing Point	< -39 °C		
	< -38 °F		
Pour point	-39 °C		

10. STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable under recommended storage conditions.***
Possibility of hazardous reactions	None under normal processing.***
Conditions to avoid	Heat (temperatures above flash point), sparks, ignition points, flames, static electricity. Take precautionary measures against static discharges. Strong oxidizing agents.***
Incompatible materials	Strong oxidizing agents.***
Hazardous Decomposition Products	Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot.***

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Principle Routes of Exposure	Inhalation, Ingestion, Eye contact, Skin contact.
Symptoms	Itching. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
Skin contact	May cause an allergic skin reaction. Avoid contact with skin.
Eye contact	Not classified. May cause eye irritation with susceptible persons.
Inhalation	Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system.
Ingestion	Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

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Acute toxicity - Product Information

Product Information Product does not present an acute toxicity hazard based on known or supplied information.

Oral Not classified based on available data***

Dermal Not classified based on available data***

Inhalation Not classified based on available data***

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Distillates (petroleum), hydrotreated light naphthenic*** 64742-53-6	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol*** 4719-04-4	LD50 1000 mg/kg (rat)***	LD50 4000 mg/kg (Rat)***	LC50(4h) 0.338 - 0.4 mg/l (rat -aerosol- OECD403) ***

Skin corrosion/irritation Not classified based on available data.***

Serious eye damage/eye irritation Not classified based on available data.***

Sensitization May cause an allergic skin reaction.

Carcinogenicity This product is not classified carcinogenic.

Mutagenicity This product is not classified as mutagenic.

Germ Cell Mutagenicity Not classified based on available data.***

Reproductive toxicity This product does not present any known or suspected reproductive hazards.

Target Organ Effects (STOT) None known.***

STOT - single exposure Not classified based on available data.***

STOT - repeated exposure Not classified based on available data.***

Other adverse effects Characteristic skin lesions (pimples) may develop following prolonged and repeated exposures (contact with contaminated clothing).

Aspiration hazard Not classified based on available data.***

12. ECOLOGICAL INFORMATION**Ecotoxicity****Acute aquatic toxicity - Product Information**

No experimental data available

Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates	Toxicity to microorganisms
Distillates (petroleum), hydrotreated light		LC50 (96h) > 5000 mg/L Oncorhynchus mykiss ()	EC50 (48h) > 1000 mg/L Daphnia magna	

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naphthenic*** 64742-53-6				
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol*** 4719-04-4	ErC50(72h) 6.66 mg/l (Desmodemus subspicatus - OECD 201) EbC50 4.34 mg/l Desmodemus subspicatus (OECD 201)***	LC50 (96h) 10-100 mg/l Danio rerio (OECD 203)	EC50 (48h) 10-100 mg/l Daphnia magna (OECD 202)	EC50 = 28.9 mg/L 15 min

Chronic aquatic toxicity - Product Information

No experimental data available

Chronic aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol*** 4719-04-4	NOEC (72h) 1.56 mg/l Desmodemus subspicatus			

Effects on terrestrial organisms No information available.*****Persistence and degradability****General Information** No information available.**Bioaccumulative potential****Product Information** No information available.**logPow** No information available**Component Information**

Chemical Name	log Pow
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol*** 4719-04-4	-2

Mobility**General Information** No information available.*****Soil** No information available**Other adverse effects****General Information** No information available*****13. DISPOSAL CONSIDERATIONS**

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Waste treatment**Waste Disposal Methods**

Dispose of in accordance with local regulations.***

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal.

California Hazardous Waste Codes 221***

14. TRANSPORT INFORMATIONDOT Not regulatedTDG Not regulatedMEX Not regulatedICAO/IATA Not regulatedIMDG/IMO Not regulatedADR/RID Not regulatedADN Not regulated**15. REGULATORY INFORMATION****International Inventories**All the substances contained in this product are listed or exempted from listing in the following inventories:
U.S.A. (TSCA)*****U.S. Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes***
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

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Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois
Distillates (petroleum), hydrotreated light naphthenic*** 64742-53-6	X***			
oleic acid 112-80-1			X***	
Ethanolamine 141-43-5	X***	X***	X***	X***

16. OTHER INFORMATION

NFPA
HMIS

Health Hazard 2***
Health Hazard 2***

Flammability 1***
Flammability 1***

Instability 0
Physical Hazard 0

Special hazards -
Personal protection X

NFPA (National Fire Protection Association)

HMIS (Hazardous Material Information System)

Hazards are split into categories each with a 0 to 4 rating, 0 meaning no hazard and 4 meaning high hazard

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Revision Note: *** Indicates updated section

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Abbreviations, acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

bw = body weight

bw/day = body weight/day

EC x = Effect Concentration associated with x% response

GLP = Good Laboratory Practice

IARC = International Agency for Research of Cancer

LC50 = 50% Lethal concentration - Concentration of a chemical in air or a chemical in water which causes the death of 50% (one half) of a group of test animals

LD50 = 50% Lethal Dose - Chemical amount, given at once, which causes the death of 50% (one half) of a group of test animals

LL = Lethal Loading

NIOSH = National Institute of Occupational Safety and Health

NOAEL = No Observed Adverse Effect Level

NOEC = No Observed Effect Concentration

NOEL = No Observed Effect Level

OECD = Organization for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration

UVCB = Substance of unknown or Variable composition, Complex reaction products or Biological material

Legend

Section 8

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH - National Institute for Occupational Safety and Health

TLV - Threshold Limit Values

PEL - Permissible Exposure Limits

IDHL - Immediately Dangerous to Life or Health concentrations

TWA - Time Weight Average

STEL - Short Term Exposure Limits

S* - Skin notation

TSCA - Toxic Substance Control Act

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

End of the Safety Data Sheet

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