

Safety Data Sheet

acc. to OSHA HCS



Printing date 08/28/2020

Reviewed on 08/28/2020

1 Identification

- **Product identifier**
- **Trade name:** SUNSTAR CHAIN LUBE DIRT
- **Application of the substance / the mixture**
Only for proper handling.
Lubrication, anticorrosive
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Sunstar Engineering Americas
700 Watkins Glen Dr.
Franklin, OH 45005
937-743-9049 PH
937-743-9069 Fax
- **Information department:** Sales@sunstar-mc.com
- **Emergency telephone number:**
USA + Kanada: 1 800 424 9300 (Chemtrec Chemical Manufacturers Association, Arlington, VA 22209)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Flam. Aerosol 1 H222 Extremely flammable aerosol.
Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**


 GHS02 GHS08
- **Signal word** Danger
- **Hazard-determining components of labeling:**
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics
isopentane
(R)-p-mentha-1,8-diene
p-Mentha-1,4-diene
- **Hazard statements**
H222 Extremely flammable aerosol.
H304 May be fatal if swallowed and enters airways.
- **Precautionary statements**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Pressurized container: Do not pierce or burn, even after use.
P301+P310 If swallowed: Immediately call a poison center/doctor.
P331 Do NOT induce vomiting.
P405 Store locked up.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 0
Fire = 4
Reactivity = 3

- **HMIS-ratings (scale 0 - 4)**



Health = 0
Fire = 4
Reactivity = 3

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 106-97-8 EINECS: 203-448-7 Index number: 601-004-00-0	butane, pure	10-25%
	Flam. Gas 1, H220; Press. Gas, H280	
EC number: 918-481-9	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics	10-25%
	Asp. Tox. 1, H304	
CAS: 74-98-6 EINECS: 200-827-9 Index number: 601-003-00-5	propane	2.5-7.5%
	Flam. Gas 1, H220; Press. Gas, H280	

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Remove residues with soap and water.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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- **Special hazards arising from the substance or mixture**
No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· PAC-1:

9003-13-8	Polypropylenglycolmonobutylether	27 mg/m ³
106-97-8	butane, pure	5500* ppm
74-98-6	propane	5500* ppm
75-28-5	isobutane	5500* ppm
78-78-4	isopentane	3000* ppm

· PAC-2:

9003-13-8	Polypropylenglycolmonobutylether	300 mg/m ³
106-97-8	butane, pure	17000** ppm
74-98-6	propane	17000** ppm
75-28-5	isobutane	17000** ppm
78-78-4	isopentane	33000*** ppm

· PAC-3:

9003-13-8	Polypropylenglycolmonobutylether	1,800 mg/m ³
106-97-8	butane, pure	53000*** ppm
74-98-6	propane	33000*** ppm
75-28-5	isobutane	53000*** ppm
78-78-4	isopentane	200000*** ppm

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
Do not spray on a naked flame or any incandescent material.

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- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Storage class:** 2 B
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:**
No further data; see section 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

106-97-8 butane, pure

REL	Long-term value: 1900 mg/m ³ , 800 ppm
TLV	Short-term value: 2370 mg/m ³ , 1000 ppm (EX)

74-98-6 propane

PEL	Long-term value: 1800 mg/m ³ , 1000 ppm
REL	Long-term value: 1800 mg/m ³ , 1000 ppm
TLV	refer to Appendix F in TLVs&BEIs book; D, EX

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
- **Breathing equipment:**
Not necessary if room is well-ventilated.
Respiratory protection if formation of aerosol or mist: use mask with filter type A2, A2/P2 or ABEK.
- **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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- **Eye protection:** Not required.
- **Body protection:** Protective work clothing

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Liquefied gas
Color:	Light yellow
Odor:	typical, characteristic
Odor threshold:	Not determined.

· **pH-value:** Not determined.

· Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Not applicable, as aerosol.

· **Flash point:** <-5 °C (<23 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

· **Vapor pressure:** Not determined.

· **Density at 20 °C (68 °F):** 0.74 g/cm³ (6.175 lbs/gal) (ASTM D 4052)

· **Relative density** Not determined.

· **Vapor density** Not determined.

· **Evaporation rate** Not applicable.

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

· **Partition coefficient (n-octanol/water):** Not determined.

· Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

VOC content: 38.06 %

· **Other information** No further relevant information available.

10 Stability and reactivity

· **Reactivity** No further relevant information available.

· Chemical stability

· Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

· **Possibility of hazardous reactions** No dangerous reactions known.

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- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· LD/LC50 values that are relevant for classification:

106-97-8 butane, pure

Inhalative	LC50 / 15 min	1,442.738-1.443 mg/l (rat)
	LC50 / 15 min	800,000 ppm (rat)
	LC50 / 2h	1,237 mg/l (mouse)
	LC50 / 2h	520,400-539,600 ppm (mouse)
	LC50 / 4h	658 mg/l (rat)
	NOAEC	4,000-16,000 ppm (rat)
	NOAEC	7.2-21.4 mg/l (rat)
	LOAEC	21.6 mg/l (rat)
	LOAEC	12,000 ppm (rat)

74-98-6 propane

Inhalative	LC50 / 15 min	1,442.738-1.443 mg/l (rat)
	LC50 / 15 min	800,000 ppm (rat)
	LC50 / 2h	1,237 mg/l (mouse)
	LC50 / 2h	520,400-539,600 ppm (mouse)
	NOAEC	4,000-16,000 ppm (rat)
	NOAEC	7.214-21.394 mg/l (rat)
	LOAEC	21.64 mg/l (rat)
	LOAEC	12,000 ppm (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

5989-27-5	(R)-p-mentha-1,8-diene	3
128-37-0	2,6-di-tert-butyl-p-cresol	3

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

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12 Ecological information

· Toxicity

· Aquatic toxicity:

106-97-8 butane, pure

LC50	24.1-147.5 mg/l/96h (fish)
LC50	14.2-69.4 mg/l/48h (aquatic invertebrates)
EC50	7.7-19.4 mg/l/96h (algae / cyanobacteria)

74-98-6 propane

LC50	24.11-147.54 mg/l/96h (fish)
LC50	14.22-69.43 mg/l/48h (aquatic invertebrates)
EC50	7.71-19.37 mg/l/96h (algae / cyanobacteria)

· **Persistence and degradability** No further relevant information available.

· Behavior in environmental systems:

· Bioaccumulative potential

106-97-8 butane, pure

Partition coefficient	1.09-2.8 [---] (log Kow) (Bioaccumulation)
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74-98-6 propane

Partition coefficient	1.09-2.8 [---] (log Kow) (Bioaccumulation)
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· **Mobility in soil** No further relevant information available.

· Additional ecological information:

· General notes:

Water hazard class 1 (according to Appendix 1 AwSV): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· Waste treatment methods

· Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Contact waste processors for recycling information.

· Uncleaned packagings:

· Recommendation:

Disposal must be made according to official regulations.
Discharged containers can contain flammable or explosive vapours.

14 Transport information

· UN-Number

· DOT, ADR/RID/ADN, IMDG, IATA

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· **UN proper shipping name**· **DOT**

Aerosols, flammable

· **ADR/RID/ADN**

1950 AEROSOLS

· **IMDG**

AEROSOLS

· **IATA**

AEROSOLS, flammable

· **Transport hazard class(es)**· **DOT**· **Class**

2.1

· **Label**

2.1

· **ADR/RID/ADN**· **Class**

2 5F Gases

· **Label**

2.1

· **IMDG, IATA**· **Class**

2.1

· **Label**

2.1

· **Packing group**· **DOT, ADR/RID/ADN, IMDG, IATA**

Void

· **Environmental hazards:**· **Marine pollutant:**

No

· **Special precautions for user**

Warning: Gases

· **Hazard identification number (Kemler code):**

-

· **EMS Number:**

F-D,S-U

· **Stowage Code**

SW1 Protected from sources of heat.

SW2 Clear of living quarters.

· **Segregation Code**

SG69 For AEROSOLS with a maximum capacity of 1 litre:

Segregation as for class 9. Stow "separated from" class 1 except for division 1.4.

For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2.

For WASTE AEROSOLS:

Segregation as for the appropriate subdivision of class 2.

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- | | | |
|---|----------|------------------------------------|
| · Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | | Not applicable. |
| · Transport/Additional information: | | |
| · ADR/RID/ADN | | |
| · Excepted quantities (EQ) | Code: E0 | Not permitted as Excepted Quantity |
| · IMDG | | |
| · Limited quantities (LQ) | 1L | |
| · Excepted quantities (EQ) | Code: E0 | Not permitted as Excepted Quantity |
| · UN "Model Regulation": | | UN 1950 AEROSOLS, 2.1 |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

9003-13-8	Polypropylenglycolmonobutylether	ACTIVE
106-97-8	butane, pure	ACTIVE
74-98-6	propane	ACTIVE
75-28-5	isobutane	ACTIVE
78-78-4	isopentane	ACTIVE
80939-62-4	Amine, C11-14-branched alkyl, Monoxyl and dibutyl phosphate	ACTIVE
125643-61-0	A mixture of isomers of: C7-9-alkyl-3-(3,5-di-trans-butyl-4-hydroxyphenyl)propionate	ACTIVE
91273-04-0	N,N-bis(2-ethylhexyl)-((1,2,4-triazol-1-yl)methyl)amine	ACTIVE
99-85-4	p-Mentha-1,4-diene	ACTIVE
586-62-9	Terpinene	ACTIVE
115-95-7	linalyl acetate	ACTIVE
470-82-6	1,8-epoxy-p-menthane	ACTIVE
5413-60-5	Tricyclodecenyl acetate	ACTIVE
106-23-0	Rhodinal	ACTIVE
87-44-5	beta-Caryophyllene	ACTIVE

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

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· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

128-37-0 2,6-di-tert-butyl-p-cresol

A4

127-91-3 beta-Pinene

A4

80-56-8 pin-2(3)-ene

A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The classification of the mixture was carried out by calculation in accordance with the rules laid down in Annex I of Regulation (EC) No 1272/2008.

No special training instructions to ensure protection of human health and environment are required.

· **Date of preparation / last revision** 08/28/2020 / 3.0

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flam. Gas 1: Flammable gases – Category 1

Flam. Aerosol 1: Aerosols – Category 1

Press. Gas: Gases under pressure – Compressed gas

Asp. Tox. 1: Aspiration hazard – Category 1

· *** Data compared to the previous version altered.**