Pulsarlube H1 CHAIN OIL 150 SPRAY

1. MANUFACTURER INFORMATION

1) Product Name : PULSARLUBE H1 CHAIN OIL 150 SPRAY

2) Recommended use of the chemical and restrictions on use

A. Product description : Lubricant oil

B. Restrictions on use : Not available except the intended use of the product

3) Supplier's details

Pulsarlube GmbH
Silostrasse 31b,
65929 Frankfurt am Main,
Germany

Telephone Number for Information:
Tel.: +49 (0) 69-3399-7501
Fax : +49 (0) 69-3399-7503
info@pulsarlube.de

Emergency telephone number +49 (0) 69-3399-7501

2. HAZARDS IDENTIFICATION

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

1) Hazard / Risk Classification

Aerosols : Category1
Hazardous to the aquatic environment – chronic hazard : Category3

2) Label elements including precautionary statements

○ Pictogram

○ Signal word : Danger

○ Hazard/Risk Statement :

H222 Extremely flammable aerosol
H229 Pressurized container: may burst if heated.
H412 Harmful to aquatic life with long lasting effects

○ Precautionary Statement

<Prevention>

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P273 Avoid release to the environment

<Response>

<Storage>
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

<Disposal>
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3) Other Hazard Risk which do not included in the classification criteria
EUH208 : Contains N-1-naphthylaniline. May produce an allergic reaction.

Chemical name / NFPA	Health	Flammability	Reactivity
1. Isobutane	0	4	0
2. Butane	0	4	0
3. Propane	1	4	0
4. 1-ANILINONAPHTHALENE	2	1	0
5. 2,6-di-tert-butyl-pcresol	0	1	0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	Other name	CAS No	Content (%)
1. Isobutane	2-METHYL PROPANE	75-28-5	10.0 ~ 25.0
2. Butane	Butane	106-97-8	1.0 ~ 5.0
3. Propane	Dimethylmethane	74-98-6	10.0 ~ 25.0
4. N-1-naphthylaniline	1-ANILINONAPHTHALENE	90-30-2	0.1 ~ 1.0
5. 2,6-di-tert-butyl-pcresol	-	128-37-0	0.1 ~ 1.0

4. FIRST AID MEASURES

General advice
Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

In case of skin contact
Take off contaminated clothing. After contact with skin, wash immediately with plenty of water and soap.

If inhaled
Provide fresh air. If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions.

In case of eye contact
Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart..

If swallowed
Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting.

5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media
Water spray, Alcohol resistant foam, Dry extinguishing powder

Unsuitable extinguishing media
Water jet

Special hazards arising from the substance or mixture
Hazardous combustion products
During fire hazardous fumes/smoke could be produced.

Advice for firefighters
In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal pre cautions from a reasonable distance

Special protective equipment for firefighters
Self-contained breathing apparatus (EN 133). Standard protective clothing for firefighters

Further information
None

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
For non-emergency personnel
Remove persons to safety. Ventilate affected area.
For emergency responders
Wear breathing apparatus if exposed to vapours/dust/spray/gases. Wear suitable protective clothing and gloves.

Environmental precautions
Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

Methods and materials for containment and cleaning up
Advices on how to contain a spill
Covering of drains.
Other information relating to spills and releases
Place in appropriate containers for disposal. Ventilate affected area.

Reference to other sections
Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section10. Disposal considerations: see section 13.

7. HANDLING AND STORAGE

Precautions for safe handling
Recommendations
- measures to prevent fire as well as aerosol and dust generation
Use local and general ventilation. Use only in well-ventilated areas. Take precautionary measures against static discharge.

Advice on general occupational hygiene
Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

Conditions for safe storage, including any incompatibilities

Managing of associated risks

- flammability hazards
  Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Do not spray on an open flame or other ignition source. Protect from sunlight.

- incompatible substances or mixtures
  Keep away from oxidizing substances. Keep away from reducing substances.

Control of effects
Protect against external exposure, such as
  Heat. High temperatures. UV-radiation/sunlight. Static discharges.

Consideration of other advice
  Store in a well-ventilated place. Keep container tightly closed

- packaging compatibilities
  Only packagings which are approved (e.g. acc. to ADR) may be used.

Specific end uses
  There is no additional information.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)								
Country	**Name of agent**	**CAS NO**	**Identifier**	**TWA [PPM]**	**TWA [mg/m³]**	**STEL [ppm]**	**STEL [mg/m³]**	**Source**
GB	Butane	106-97-8	WEL	600	1450	750	1810	EH40/2005
GB	2,6-di-tert-butyl-p-cresol	128-37-0	WEL		10			EH40/2005

Notation
STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified
TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

Relevant DNELs/DMELs/PNECs and other threshold levels
No data available

Relevant DNELs of components of the mixture						
Name of substance	CAS NO	End Point	Threshold level	Protection goal route of exposure	Used in	Exposure time
N-1-naphthylaniline	90-30-2	DNEL	0.41mg/m³	human, inhalatory	worker (industry)	Chronic – systemic effects
N-1-naphthylaniline	90-30-2	DNEL	0.12 mg/kg bw/day	human, dermal	worker (industry)	Chronic – systemic effects
N-1-naphthylaniline	90-30-2	DNEL	0.1 mg/m³	human, inhalatory	Consumer(private households)	Chronic – systemic effects
N-1-naphthylaniline	90-30-2	DNEL	0.06 mg/kg bw/day	human, dermal	Consumer(private households)	Chronic – systemic effects
N-1-naphthylaniline	90-30-2	DNEL	0.06 mg/kg bw/day	human, oral	Consumer(private households)	Chronic – systemic effects
2,6-di-tert-butyl-pcreso	128-37-0	DNEL	3.5 mg/m³	human, inhalatory	worker (industry)	Chronic – systemic effects
2,6-di-tert-butyl-pcreso	128-37-0	DNEL	0.5 mg/kg bw/day	human, dermal	worker (industry)	Chronic – systemic effects
2,6-di-tert-butyl-pcreso	128-37-0	DNEL	0.86 mg/m³	human, inhalatory	Consumer(private households)	Chronic – systemic effects
2,6-di-tert-butyl-pcreso	128-37-0	DNEL	0.25 mg/kg bw/day	human, dermal	Consumer(private households)	Chronic – systemic effects

Relevant PNECs of components of the mixture						
Name of substance	CAS NO	End Point	Threshold level	Organism	Environmental compartment	Exposure time
N-1-naphthylaniline	90-30-2	PNEC	0 mg/l	aquatic organisms	freshwater	short-term (single instance)
N-1-naphthylaniline	90-30-2	PNEC	0 mg/l	aquatic organisms	marine water	short-term (single instance)
N-1-naphthylaniline	90-30-2	PNEC	0.003 mg/l	aquatic organisms	water	intermittent release
N-1-naphthylaniline	90-30-2	PNEC	100 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
N-1-naphthylaniline	90-30-2	PNEC	0.034 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
N-1-naphthylaniline	90-30-2	PNEC	0.003 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
N-1-naphthylaniline	90-30-2	PNEC	0.007 mg/kg	terrestrial organisms	soil	short-term (single instance)
2,6-di-tert-butyl-pcresol	128-37-0	PNEC	0.199 µg/l	aquatic organisms	freshwater	short-term (single instance)
2,6-di-tert-butyl-pcresol	128-37-0	PNEC	0.02 µg/l	aquatic organisms	marine water	short-term (single instance)
2,6-di-tert-butyl-pcresol	128-37-0	PNEC	1.99 µg/l	aquatic organisms	water	intermittent release
2,6-di-tert-butyl-pcresol	128-37-0	PNEC	0.17 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
2,6-di-tert-butyl-pcresol	128-37-0	PNEC	99.6 µg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
2,6-di-tert-butyl-pcresol	128-37-0	PNEC	9.96 µg/kg	aquatic organisms	marine sediment	short-term (single instance)
2,6-di-tert-butyl-pcresol	128-37-0	PNEC	47.69 µg/kg	terrestrial organisms	soil	short-term (single instance)

Appropriate engineering controls
General ventilation.

Personal protective equipment

Respiratory protection
During spraying wear suitable respiratory equipment. In case of inadequate ventilation wear respiratory protection. Breathing apparatus only in case of aerosol or mist formation.

Eye protection
Use safety goggle with side protection (EN 166)..

Hands protection
Chemical protection gloves are suitable, which are tested according to EN 374. 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.

- breakthrough times of the glove material
  >480 minutes (permeation: level 6).
- other protection measures
  Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Environmental exposure controls
Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

9. PHYSICAL AND CHEMICAL PROPERTIES

r) Appearance	aerosol (spray aerosol), light yellow
b) Odour	Characteristic
c) Odour threshold	no data available

d) pH	no data available
e) Meting point/freezing point	-62 °C
f) Initial boiling point and boiling range	no data available
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	flammable aerosol in accordance with GHS criteria
j) Upper/lower flammability or explosive limits	no data available
k) Vapor pressure	no data available
l) Solubility	insoluble
m) Vapor density	this information is not available
n) Relative density	information on this property is not available
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	142.6 mm²/s at 40 °C (ASTM D 445)
s) Formula mass	no data available

Other information

Of no significance.

10. STABILITY AND REACTIVITY

Reactivity
The mixture contains reactive substance(s). Risk of ignition.
Chemical stability
See below "Conditions to avoid".
Possibility of hazardous reactions
No known hazardous reactions.
Conditions to avoid
Do not spray on an open flame or other ignition source. Keep away from heat. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints to prevent fire or explosion
Protect from sunlight

Incompatible materials
Oxidisers, Reducing agents
Hazardous decomposition products
Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5..

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Test data are not available for the complete mixture.

Classification procedure
The method for classification of the mixture is based on ingredients of the mixture (additivity formula).
Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity
Shall not be classified as acutely toxic.

Acute toxicity of components of the mixture

Name of substance	CAS NO	Exposure route	Endpoint	Value	Species
N-1-naphthylaniline	90-30-2	oral	LD50	1,625 mg/kg	Rat
N-1-naphthylaniline	90-30-2	dermal	LD50	>5,000 mg/kg	rabbit
2,6-di-tert-butyl-p-cresol	128-37-0	oral	LD50	>6,000 mg/kg	rat
2,6-di-tert-butyl-p-cresol	128-37-0	dermal	LD50	>2,000 mg/kg	rat
2,6-di-tert-butyl-p-cresol	128-37-0	dermal	LD50	>5,000 mg/kg	rat

Skin corrosion/irritation
Shall not be classified as corrosive/irritant to skin. May cause slight irritation.
Serious eye damage/eye irritation
Shall not be classified as seriously damaging to the eye or eye irritant. May cause slight irritation.
Respiratory or skin sensitisation
Contains N-1-naphthylaniline. May produce an allergic reaction.
Germ cell mutagenicity
Shall not be classified as germ cell mutagenic
Carcinogenicity
Shall not be classified as carcinogenic
Reproductive toxicity
Shall not be classified as a reproductive toxicant.
Specific target organ toxicity - single exposure
Shall not be classified as a specific target organ toxicant (single exposure).
Specific target organ toxicity - repeated exposure
Shall not be classified as a specific target organ toxicant (repeated exposure).
Aspiration hazard
Shall not be classified as presenting an aspiration hazard.

12. ECOLOGICAL INFORMATION

Toxicity
Harmful to aquatic life with long lasting effects.

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS NO	Endpoint	Value	Species	Exposure time
isobutane	75-28-5	LC50	27.98 mg/l	fish	96h
isobutane	75-28-5	EC50	7.71 mg/l	algae	96h
propane	74-98-6	LC50	27.98 mg/l	fish	96h
propane	74-98-6	EC50	7.71 mg/l	algae	96h
butane	106-97-8	LC50	27.98 mg/l	fish	96h
butane	106-97-8	EC50	7.71 mg/l	algae	96h
N-1-naphthylaniline	90-30-2	LC50	0.44 mg/l	fish	96h
2,6-di-tert-butyl-p-cresol	128-37-0	LC50	0.199 mg/l	fish	96h
2,6-di-tert-butyl-p-cresol	128-37-0	LC50	>0.57 mg/l	zebra fish (Danio rerio)	96h
2,6-di-tert-butyl-p-cresol	128-37-0	EC50	0.48 mg/l	Aquatic invertebrates	48h
2,6-di-tert-butyl-p-cresol	128-37-0	EC50	>0.17 mg/l	daphnia magna	48h

Aquatic toxicity (chronic) of components of the mixture					
Name of substance	CAS NO	Endpoint	Value	Species	Exposure time
N-1-naphthylaniline	90-30-2	EC50	>10,000 mg/l	microorganisms	3 h
2,6-di-tert-butyl-p-cresol	128-37-0	EC50	1.7 mg/l	microorganisms	24h

Persistence and degradability

Aquatic toxicity (chronic) of components of the mixture						
Name of substance	CAS NO	Process	Degradation rate	time	Method	Source
N-1-naphthylaniline	90-30-2	oxygen depletion	0 %	28d		ECHA

Bioaccumulative potential
The bioaccumulation potential is low

Bioaccumulative potential of components of the mixture				
Name of substance	CAS NO	BCF	Log KOW	BOD5/COD
isobutane	75-28-5		1.09 (pH value: 7, 20 °C)	
propane	74-98-6		1.09 (pH value: 7, 20 °C)	
butane	106-97-8		1.09 (pH value: 7, 20 °C)	
N-1-naphthylaniline	90-30-2	600	4.28	
2,6-di-tert-butyl-p-cresol	128-37-0		5.1 (20 °C)	

Mobility in soil
Data are not available.

Results of PBT and vPvB assessment
This mixture does not contain any substances that are assessed to be a PBT or a vPvB

Other adverse effects
Data are not available

Endocrine disrupting potential
None of the ingredients are listed.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Sewage disposal-relevant information
Do not empty into drains. Avoid release to the environment
Waste treatment of containers/packagings
It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Handle contaminated packages in the same way as the substance itself

Relevant provisions relating to waste
List of wastes, Decision 2000/532/EC on the list of waste
16 05 04x Gases in pressure containers (including halons) containing dangerous substances

Remarks
Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities

14. TRANSPORT INFORMATION

UN number
UN 1950

UN proper shipping name
AEROSOLS

Transport hazard class(es)
Class : 2 (gases) (aerosol)
Subsidiary risk(s) : 2.1 (flammable)

Packaging group
Not assigned to a packing group

Environmental hazards
non-environmentally hazardous acc. to the dangerous goods regulations

Special precautions for user
Provisions for dangerous goods (ADR) should be complied within the premises.

Transport in bulk according to Annex II of MARPOL and the IBC Code
Not applicable.

Information for each of the UN Model Regulations
Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)

UN number	1950
Proper shipping name	AEROSOLS
Class	2
Classification code	5F
Danger laber(s)	2.1

Special provisions (SP)	190,327,344,625
Excepted quantities (EQ)	EO
Limited quantities (LQ)	1L
Transport category (TC)	2
Tunnel restriction code (TRC)	D

International Maritime Dangerous Goods Code (IMDG)

UN number	1950
Proper shipping name	AEROSOLS
Limited quantities (LQ)	2.1
Transport category (TC)	2.1

Special provisons (SP)	63,190,277,327,344,381,959
Excepted quantities (EQ)	E0
Limited quantities (LQ)	1L
EmS	F-D, S-U
Stowage category	-

International Civil Aviation Organization (ICAO-IATA/DGR)

UN number	1950
Proper shipping name	AEROSOLS, flammables
Class	2.1
Danger label(s)	2.1

Special provisions (SP)	A145, A167
Excepted quantities (EQ)	E0
Limited quantities (LQ)	30 kg

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture
Relevant provisions of the European Union (EU)
Restrictions according to REACH, Annex XVII

Dangerous substances with restrictions (REACH, Annex XVII)

Name of substance	Name acc. to inventory	CAS No	Type of registration	Conditions of restriction	No
butane	flammable / pyrophoric		1907/2006/EC annex XVII	R40	40
propane	flammable / pyrophoric		1907/2006/EC annex XVII	R40	40
isobutane	flammable / pyrophoric		1907/2006/EC annex XVII	R40	40

Legend
R40 1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the
general public for entertainment and decorative purposes such as the following:
- metallic glitter intended mainly for decoration,
- artificial snow and frost,
- 'whoopee' cushions,
- silly string aerosols,
- imitation excrement,
- horns for parties,
- decorative flakes and foams,
- artificial cobwebs,
- stink bombs.

2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers
shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with: 'For professional users only'.
3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of

Council Directive
75/324/EEC (2).
4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements
indicated.

List of substances subject to authorisation (REACH, Annex XIV)
None of the ingredients are listed.

Chemical Safety Assessment
No Chemical Safety Assessment has been carried out for this mixture by the supplier.

16. OTHER INFORMATION

1) Source of the data
   (1) Chemical manufacturer's information : SDS(SAFETY DATA SHEET) Data
   (2) Chem Guide CAS DataBase
   (3) Corporate Solution From Thomson Micromedex(http://csi.micromedex.com)
   (4) ECB-ESIS(European chemical Substances Information System)(http://ecb.jrc.it/esis)
   (5) ECOTOX Database, EPA(http://cfpub.epa.gov/ecotox)
   (6) IUCLID Chemical Data Sheet, EC-ECB
   (7) International Chemical Safety Cards(ICSC)(http://www.nihs.go.jp/ICSC)
   (8) TOXNET, U.S. National Library of Medicine(http://toxnet.nlm.nih.gov)
   (9) The Chemical Database, The Department of Chemistry at the University of Akron (http://ull.chemistry.uakron.edu/erd)
   (10) Korea Information System for Chemical Safety, KISChem (http:// http://kischem.nier.go.kr)
   (11) Chemical information system (http://ncis.nier.go.kr)
   (12) Grease Raw material manufacturer's information : PSDS(PRODUCT SAFETY DATA SHEET) Data
2) The first creation date : 2020.03.06
3) The number of times, and the final revision date : Revision times 00
   The final revision date : 2020.03.06

Further information

Pulsarlube has prepared copyrighted Product Safety Datasheets to provide information on the different Pulsarlube automatic grease lubricator systems. As defined in above the text Pulsarlube automatic grease lubricator are manufactured articles, which do not result in exposure to a hazardous chemical under normal conditions of use. The information and recommendations set forth herein are made in good faith, for information only, and are believed to be accurate as of the date of preparation. However, Pulsarlube , Inc. MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THIS INFORMATION AND DISCLAIMS ALL LIABILITY FROM REFERENCE ON IT.