Safety Data Sheet
CHAIN LUBE SPRAY

Safety Data Sheet dated 28/3/2023, version 1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Mixture identification:
Trade name: CHAIN LUBE SPRAY

1.2. Relevant identified uses of the substance or mixture and uses advised against
Recommended use:
PC-TEC-11 (EuPCS)
1.3. Details of the supplier of the safety data sheet
Company:
NILS S.p.A.
Via Stazione, 30
39014 Postal (BZ)

e-mail: nils@nils.it
www.nils.eu
Tel. +39 0473 29 24 00
Fax +39 0473 29 12 44
Competent person responsible for the safety data sheet:
schedasicurezza@nils.it
1.4. Emergency telephone number
CAV "Ospedale Pediatrico Bambino Gesù" - Roma - Tel. +39 06 6859 37 26

CAV "Azienda Ospedaliera Università di Foggia" - Foggia - Tel. 800 183 459

CAV "Azienda Ospedaliera A. Cardarelli" - Napoli - Tel. +39 081 545 33 33

CAV Policlinico "Umberto I" - Roma - Tel. +39 06 4997 80 00

CAV Policlinico "A. Gemelli" - Roma - Tel. +39 06 305 43 43

CAV Aziedna Ospedaliera "Careggi" U.O. Tossicologia Medica - Firenze - Tel. +39 055 794 78 19

CAV Centro Nazionale di Informazione Tossicologica - Pavia - Tel. +39 0382 24 444

CAV Ospedale Niguarda - Milano - +39 02 66 10 10 29

CAV Azienda Ospedaliera Papa Giovanni XXIII - Bergamo - Tel. 800 88 33 00

CAV Centro Antiveleni Veneto - Verona - Tel. 800 011 858
Tel. +39 0473 29 24 00
Fax +39 0473 29 12 44

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
EC regulation criteria 1272/2008 (CLP)
Danger, Aerosols 1, Extremely flammable aerosol. Pressurized container: may burst if heated.
Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Danger

Hazard statements:

H222, H229 Extremely flammable aerosol. Pressurized container: may burst if heated.

Precautionary statements:

P102 Keep out of reach of children.
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.
P271 Use only outdoors or in a well-ventilated area.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

Special Provisions:

None

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1%

Other Hazards:

Explosive/flammable mixtures may form with insufficient ventilation and/or during use.

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number		Classification
>= 25% - < 30%	butane	Index number:	601-004-00-0	2.2/1 Flam. Gas 1 H220 2.5/L Press Gas (Liq.) H280
		CAS:	106-97-8	
		EC:	203-448-7	
>= 12,5% - < 15%	propane	Index number:	601-003-00-5	2.2/1 Flam. Gas 1 H220 2.5/L Press Gas (Liq.) H280
		CAS:	74-98-6	
		EC:	200-827-9	

Other information:

DMSO extract < 3% (IP 346)

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Wash with plenty of water and soap.

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

4.2. Most important symptoms and effects, both acute and delayed

None

4.3. Indication of any immediate medical attention and special treatment needed

Treatment:

None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

CO2 or Dry chemical fire extinguisher.

In case of fire, use a foam fire extinguisher to extinguish.

Extinguishing media which must not be used for safety reasons:

Jets of water

5.2. Special hazards arising from the substance or mixture

Extremely flammable aerosol.

Pressurized container: may burst if heated.

Overheated aerosol containers burst and can be thrown violently from a distance, and a dangerous fire spread mechanism can occur.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non emergency personnel:

Remove all sources of ignition.

Remove all sources of ignition.

For emergency responders:

Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for cleanup: absorbing material, organic material, sand

6.3. Methods and material for containment and cleaning up

For containment:

Collect with absorbent substances (sand, kieselguhr, diatomite, acid binder, universal binder).

6.4. Reference to other sections

Hazardous combustion products: see Sect. 5

Precautions for safe handling: see Sect. 7
Individual protection measures: see Sect. 8
Incompatible materials: see Sect. 10
Enviornmental precautions: see Sect. 12
Disposal considerations: see Sect. 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Keep away from sources of ignition - No smoking.
Avoid accumulating electrostatic charge.
Do not spray on a naked flame or any incandescent material.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Advice on general occupational hygiene:
Contamined clothing should be changed before entering eating areas.
Do not eat or drink while working.
7.2. Conditions for safe storage, including any incompatibilities
Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.
Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.
Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:
Cool and adequately ventilated.
7.3. Specific end use(s)
PC-TEC-11 (EuPCS)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
butane - CAS: 106-97-8
- OEL Type: TRGS 900 - TWA: 1800 mg/m3, 1000 ppm - Notes: 4(II)
DNEL Exposure Limit Values
N.A.
PNEC Exposure Limit Values
N.A.
8.2. Exposure controls
Eye protection:
Not needed for normal use. Anyway, operate according good working practices.
Protection for skin:
No special precaution must be adopted for normal use.
Protection for hands:
Only CE-marked protective gloves tested according to EN 374 may be worn when working with chemicals. Protective gloves must be selected for each workplace depending on the concentration and type of harmful substances after consultation with the supplier. Establish a healing period for skin regeneration. Preventive protection of the skin is recommended (protective creams/pomades). Wash hands thoroughly after use.
Not needed for normal use.
Respiratory protection:
Not needed for normal use.

Thermal Hazards:
None
Environmental exposure controls:
None
Appropriate engineering controls:
None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes
Physical state:	Liquid	--	--
Colour:	White	--	--
Odour:	of: Mineral oil	--	--
Melting point/freezing point:	N.A.	--	--
Pour point	N.A.	--	--
Drop point	N.A.	--	--
Boiling point or initial boiling point and boiling range:	< -20 ° C	--	--
Flammability:	N.A.	--	--
Lower and upper explosion limit:	N.A.	--	--
Flash point:	< -20 ° C	--	--
Auto-ignition temperature:	365 ° C	--	--
Decomposition temperature:	N.A.	--	--
pH:	N.A.	--	--
Kinematic viscosity:	N.A.	--	--
Solubility in water:	almost insoluble	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient n-octanol/water (log value):	N.A.	--	--
Vapour pressure:	N.A.	--	--
Density and/or relative density:	0.695 kg/dm3	--	20 °C
Relative vapour density:	N.A.	--	--
Particle characteristics:			
Particle size:	N.A.	--	--

9.2. Other information

Properties	Value	Method:	Notes
Explosive properties:	5% - 15% vol.	--	--

SECTION 10: Stability and reactivity

10.1. Reactivity
Stable under normal conditions
10.2. Chemical stability
Stable under normal conditions
10.3. Possibility of hazardous reactions
None
10.4. Conditions to avoid
Stable under normal conditions.
10.5. Incompatible materials
Avoid contact with combustible materials. The product could catch fire.
10.6. Hazardous decomposition products
None.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicological information of the product:
CHAIN LUBE SPRAY
a) acute toxicity
Not classified
Based on available data, the classification criteria are not met
b) skin corrosion/irritation
Not classified
Based on available data, the classification criteria are not met
c) serious eye damage/irritation
Not classified
Based on available data, the classification criteria are not met
d) respiratory or skin sensitisation
Not classified
Based on available data, the classification criteria are not met
e) germ cell mutagenicity
Not classified
Based on available data, the classification criteria are not met
f) carcinogenicity
Not classified
Based on available data, the classification criteria are not met
g) reproductive toxicity
Not classified
Based on available data, the classification criteria are not met
h) STOT-single exposure
Not classified
Based on available data, the classification criteria are not met
i) STOT-repeated exposure
Not classified
Based on available data, the classification criteria are not met
j) aspiration hazard
Not classified
Based on available data, the classification criteria are not met
Toxicological information of the main substances found in the product:
butane - CAS: 106-97-8
a) acute toxicity:
Test: LC50 - Route: Inhalation - Species: Rat 659 g/m3
Test: LC50 - Route: Inhalation - Species: Mouse 680 g/m3

11.2. Information on other hazards
Endocrine disrupting properties:
No endocrine disruptor substances present in concentration >= 0.1%

SECTION 12: Ecological information

12.1. Toxicity
Adopt good working practices, so that the product is not released into the environment.
CHAIN LUBE SPRAY
Not classified for environmental hazards
Based on available data, the classification criteria are not met
butane - CAS: 106-97-8
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish = 49.9 mg/l - Duration h: 96 h - Notes: US Environmental Protection
Endpoint: ErC50 - Species: Algae = 19.37 mg/l - Duration h: 96 h - Notes: USEPA OPPT Risk Assessment

Endpoint: EC50 - Species: Daphnia = 69.43 mg/l - Duration h: 48 h - Notes: USEPA OPPT Risk Assessment

propane - CAS: 74-98-6

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 49.9 mg/l - Duration h: 96 h - Notes: US Environmental Protection

Endpoint: ErC50 - Species: Algae = 19.37 mg/l - Duration h: 96 h - Notes: USEPA OPPT Risk Assessment

Endpoint: EC50 - Species: Daphnia = 69.43 mg/l - Duration h: 48 h - Notes: USEPA OPPT Risk Assessment

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

butane - CAS: 106-97-8

Test: Log Pow 1.09

propane - CAS: 74-98-6

Test: Log Pow 1.09

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Endocrine disrupting properties

No endocrine disruptor substances present in concentration >= 0.1%

12.7. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste Code: 160504

Dispose of according to Directive (EC) n. 2008/98 on waste and hazardous waste. Recycle in compliance with official regulations.

SECTION 14: Transport information

14.1. UN number or ID number

ADR-UN number:	UN 1950
RID-UN Number:	UN 1950
ADN-UN Number:	UN 1950
IATA-Un number:	UN 1950
IMDG-Un number:	UN 1950

14.2. UN proper shipping name

ADR-Shipping Name:	AEROSOLS, FLAMMABLE
IATA-Technical name:	AEROSOLS, FLAMMABLE
IMDG-Technical name:	AEROSOLS, FLAMMABLE

14.3. Transport hazard class(es)

ADR-Class:	2
ADR-Label:	2.1
RID-Class:	2
ADN-Class:	2
IATA-Class:	2.1
IATA-Label:	2.1
IMDG-Class:	2.1

14.4. Packing group

RID-Packing Group: -
ADN-Packing Group: -
ADR-Packing Group: -
IATA-Packing group: -
IMDG-Packing group: -
ADR-Special provisions: 190 327 344 625
ADN-Special provisions: 190 327 344 625
IATA-Special provisions: A145 A167 A802
IMDG-Special provisions: 63 190 277 327 344 381 959
Limited quantity: 1 L
Accepted quantity: E0
Classification code: 5F
IATA Limited quantity Passenger: 30 kg G
IATA Passenger LQ: Y203

14.5. Environmental hazards

Marine pollutant: No
IMDG-EMS: F-D,S-U

14.6. Special precautions for user

ADR-Transport category (Tunnel restriction code): D
Rail (RID): 190 327 344 625
ADN: 190 327 344 625
IATA-Passenger Aircraft: 203 / 75kg
IATA-Cargo Aircraft: 203 / 150kg
IMDG-Technical name: AEROSOLS, FLAMMABLE

14.7. Maritime transport in bulk according to IMO instruments

N.A.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) n. 2020/878
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)
Regulation (EU) n. 2018/669 (ATP 11 CLP)
Regulation (EU) n. 2018/1480 (ATP 13 CLP)
Regulation (EU) n. 2019/521 (ATP 12 CLP)
Regulation (EU) n. 2020/217 (ATP 14 CLP)
Regulation (EU) n. 2020/1182 (ATP 15 CLP)
Regulation (EU) n. 2021/643 (ATP 16 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restriction 40

Restrictions related to the substances contained:

No restriction.

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

Product belongs to category: P3a

National legislation

Limitations for workers: Respect the employment limits according to Directive 94/33/EC on the protection of young people at work.

German Water Hazard Class: 1 - Slightly water pollutant.

15.2. Chemical safety assessment

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

SECTION 16: Other information

COV(%): 40
COV(g/l): 278

Full text of phrases referred to in Section 3:

H220 Extremely flammable gas.

H280 Contains gas under pressure; may explode if heated.

Hazard class and hazard category	Code	Description
Flam. Gas 1	2.2/1	Flammable gas, Category 1
Aerosols 1	2.3/1	Aerosol, Category 1
Press Gas (Liq.)	2.5/L	Gases under pressure (Liquefied gas)

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Aerosols 1, H222, H229	On basis of test data

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE:	Acute Toxicity Estimate
ATEmix:	Acute toxicity Estimate (Mixtures)
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.