McLube®
RELEASE AGENTS AND LUBRICATION TECHNOLOGY

SAFETY DATA SHEET

This safety data sheet complies with the requirements of:
Regulation (EU) No. 2020/878 and Regulation (EC) No. 1272/2008

Issue Date 1992 11 02 **Revision Date** 2023 06 07 **Version** 17.21

Supersedes v16.21, 2021 02 01

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name	**SAILKOTE AEROSOL**
Product Code	5842
Substance / Mixture	Mixture
PCN UFI	**VJ5H-E0CE-J00J-KES0**

Contains Heptane (n-), Butyl acetate. Does not contain nanoform substances.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use	Dry lubricant Aerosol
Uses advised against	For industrial and consumer use.

1.3. Details of the supplier of the safety data sheet

Importer
Harken Sweden AB Västmannagatan
81 B
S-113 26 Stockholm
Sweden
Tel: +46 303 61875
Fax: +46 (0) 303 61876

Manufacturer
McGee Industries, Inc.
9 Crozerville Rd
P.O. Box 2425
Aston, PA 19014
United States
Tel: +1-610-459-1890
Fax: +1-610-459-9538

info@mclube.se
info@mclube.com

1.4. Emergency telephone numbers

CHEMTREC INTERNATIONAL: +1-703-527-3887
CHEMTREC NATIONAL: See table below

COUNTRY	NATIONAL POISON CENTER	CHEMTREC
Österreich (Austria)	01 406 43 43	+(43)-13649237
Belgium	070 245 245	+(32)-28083237
Hrvatska (Croatia)	+385 1 2348 385	+(385)-17776920
Danmark (Denmark)	+45 8212 1212	+(45)-69918573
Deutschland (Germany)	0 30 192 40	0800-181-7059
España (Spain)	+34 91 562 04 20	900-868538
Suomi (Finland)	0800 147 111	+(358)-942419014
France	+33 (0)1 45 42 59 59	+(33)-975181407
Luxembourg	(+352) 8002 5500	+(352)-20202416
Italia (Italy)	06 499 70 698	800-789-767
Nederland (The Netherlands)	+31 (0) 88 755 8000	+(31)-85 888 0596
Norge (Norway)	022 59 13 00	+(47)-21930678
Polska (Poland)	+48 42 63 14 724	+(48)-223988029
Portugal	(+351) 800 250 250	+(351)-308801773
Rossiyskaya Federatsiya (Russian Federation)	+7 495 628 1687	8-800-100-6346
Slovenija (Slovenia)	112	+(386)-18888016
Sverige (Sweden)	112	+(46)-8 525 034 03
Switzerland	0 44 251 51 51	+(41)-43 508 20 11
United Kingdom	111	+(44)-20 3807 3798

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture according to CLP

Regulation (EC) No 1272/2008

This mixture is classified as hazardous according to Regulation (EC) 1272/2008 (CLP/GHS).
This information is offered in good faith based on data available to us that we believe to be true and accurate.

Aspiration toxicity	Category 1 - (H304)
Skin corrosion/irritation	Category 3 - (H316)
Specific target organ toxicity (single exposure)	Category 3 - (H336)
Chronic aquatic toxicity	Category 1 - (H410)
Flammable Aerosols	Category 1 - (H222, H229)

2.2. Label elements

Product identifier

Contains Heptane (n-), Butyl acetate.

Hazard Pictograms

Signal word Danger

Hazard statements

H222 - Extremely flammable aerosol
H229 - Pressurized container: May burst if heated
H304 - May be fatal if swallowed and enters airways
H316 - Causes mild skin irritation
H336 - May cause drowsiness or dizziness
H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements - EU (§28, 1272/2008)

P101 - If medical advice is needed, have product container or label at hand
P102 - Keep out of reach of children
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
P261 - Avoid breathing vapors/spray
P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P273 - Avoid release to the environment
P280 - Wear protective gloves and eye/face protection
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312 - Call a POISON CENTER or doctor/physician if you feel unwell
P332 + P313 - If skin irritation occurs: Get medical advice/attention
P337 + P313 - If eye irritation persists: Get medical advice/attention
P370 + P378 - In case of fire: Use Water spray (fog), Carbon dioxide (CO2), dry sand, dry chemical or alcohol-resistant foam to extinguish
P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F
P405 - Store locked up
P501 - Dispose of contents/container in accordance with national regulations

2.3. Other hazards

Material can accumulate static charges which may cause ignition. Material can release vapours that readily form flammable mixtures. Vapour accumulation could flash and/or explode if ignited.

Irritating to eyes, respiratory system and skin. Prolonged skin contact may defat the skin and produce dermatitis. May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination. Aspiration into lungs can produce severe lung damage.

Do not pierce or burn, even after use. When operating continuously for long periods, the aerosol container can become very cold. Care should be taken to avoid skin burns.

Do not smoke. Do not contaminate tobacco products. The thermal decomposition vapours of fluorinated polymers may cause polymer fume fever with flu-like symptoms in humans, especially when smoking tobacco.

This mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

The mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Regulation (EU) 2017/2100 or Regulation (EU) 2018/605 at levels of 0.1% or higher.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances Not applicable

3.2 Mixtures
Chemical nature Fluoropolymer dispersion. Aerosol.

Component Information:

Chemical Name	EC No.	CAS No.	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
Heptane (n-)	205-563-8	142-82-5	40.0-50.0	Skin Irrit. 2; (H315) STOT SE 3; (H336) Asp. Tox. 1; (H304) Aquatic Acute 1; (H400) Aquatic Chronic 1; (H410) Flam. Liq. 2; (H225) M-Factor (Chronic aquatic toxicity): 1 Acute toxicity estimate Acute oral toxicity: > 5840 mg/kg Acute inhalation toxicity: > 23.3 mg/l 4 Hour, vapour Acute dermal toxicity: > 2920 mg/kg Specific concentration limit Asp. Tox. 1, (H304) Kinematic Viscosity ≤ 20.5 mm^2/s @ 40°C STOT SE 3, (H336) Inhalation LC50 > 10 mg/l/4h	01-2119457603-38
n-Butyl Acetate	204-658-1	123-86-4	10.0-20.0	Flam. Liq. 3 (H226) STOT SE 3; (H336) EUH066 M-Factor (Chronic aquatic toxicity): N/A Acute toxicity estimate Acute oral toxicity: 10760 mg/kg	01-2119485493-29

				Acute inhalation toxicity: > 21 mg/l 4 Hour vapour Acute dermal toxicity: > 14100 mg/kg Specific concentration limit STOT SE 3, (H336) Inhalation LC50 > 10 mg/l/4h	
Dimethyl Ether	204-065-8	115-10-6	10.0-20.0	Flam. Gas 1 (H220) Press. Gas (Liq.) (H280) M-Factor (Chronic aquatic toxicity): N/A Acute toxicity estimate Acute oral toxicity: N/A Acute inhalation toxicity: 308.5 mg/l 4 h Acute dermal toxicity: N/A Specific concentration limit N/A	01-2119472128-37
Ethanol	200-578-6	64-17-5	10.0-20.0	Flam. Liq. 2 (H225) M-Factor (Chronic aquatic toxicity): N/A Acute toxicity estimate Acute oral toxicity: 10470 mg/kg Acute inhalation toxicity: 124.7 mg/l 4 Hour Acute dermal toxicity: N/A Specific concentration limit N/A	01-2119457610-43
Carbon Dioxide	204-696-9	124-38-9	5.0-7.0	Press. Gas (Liq.) (H280) M-Factor (Chronic aquatic toxicity): N/A Acute toxicity estimate Acute oral toxicity: N/A Acute inhalation toxicity: N/A Acute dermal toxicity: N/A Specific concentration limit N/A	-
Propan-2-ol	200-661-7	67-63-0	1.0-5.0	Eye Irrit. 2, (H319) STOT SE 3, (H336) Flam. Liq. 2, (H225) M-Factor (Chronic aquatic toxicity): N/A Acute toxicity estimate Acute oral toxicity: 5840 mg/kg Acute inhalation toxicity: > 25000 mg/m^3 6 Hour vapour Acute dermal toxicity: N/A Specific concentration limit Inhalation LC50 >10 mg/l/4h	01-2119457558-25
Polytetrafluoroethylene	618-337-2	9002-84-0	0.5-1.5	Not classified	-

				M-Factor (Chronic aquatic toxicity): N/A Acute toxicity estimate Acute oral toxicity: N/A Acute inhalation toxicity: N/A Acute dermal toxicity: N/A Specific concentration limit N/A Particle characteristics: Average particle size 3 µm, ASTM D4464 Particle size distribution 10% <1 µm, 90% <9 µm Specific surface area 1.5-3.0, m^2/g, Nitrogen Adsorption Nanoform N/A	

Full text of H- and EUH-phrases: see section 16

Additional information
The exact percentage (concentration) of composition has been withheld as a trade secret.

Weight percents listed are typical and do not represent a specification. Remaining components are proprietary, nonhazardous, and/or present at amounts below reportable limits.

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59). This product does not contain nanoform particles.

The monomers constituting the polymers present in the product are REACH registered.

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice Use first aid treatment according to the nature of the injury. Never give anything by mouth to an unconscious person. When symptoms persist or in all cases of doubt, seek medical advice.

Inhalation Remove from exposure, lie down. Artificial respiration and/or oxygen may be necessary. If symptoms persist, call a physician.

Skin contact Wash off immediately with soap and plenty of water. Take off contaminated clothing. Wash contaminated clothing before reuse. If symptoms persist, call a physician.

Eye contact Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing. Obtain medical attention if irritation develops or persists.

Ingestion Never give anything by mouth to an unconscious person. Clean mouth with water. Do NOT induce vomiting without medical advice. Potential for aspiration if swallowed. Call a physician immediately.

Self-protection of the first aider First aider: Pay attention to self-protection. Remove all sources of ignition. Use personal protection recommended in Section 8.

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

Symptoms Drowsiness. Dizziness.

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

Note to physicians Treat symptomatically. Potential for aspiration if swallowed.

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media
Water spray (fog). Carbon dioxide (CO2). Foam. Dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media
Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

May be ignited by heat, sparks or flames. Vapors may form explosive mixture with air. Vapors may travel to source of ignition and flash back. Flash back possible over considerable distance. Thermal decomposition can lead to release of irritating and toxic gases and vapors. Contents under pressure. Aerosol cans may explode in a fire.

Hazardous combustion products Carbon oxides. Fluorinated compounds.

5.3. Advice for firefighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Keep away from sources of ignition. Prevent fire fighting water from entering surface water or groundwater. Cool containers with spray water from a safe distance.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions
Use personal protection recommended in Section 8. Evacuate personnel to safe areas. Remove all sources of ignition. Take precautionary measures against static discharges.

See also Section 12.

For emergency responders
Use personal protection recommended in Section 8.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so. If possible, turn leaking containers so that gas escapes rather than liquid. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

6.4. Reference to other sections

See Section 8 for more information. See Section 13 for more information.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling
Contents under pressure. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and

static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. Do not smoke. Avoid contact with skin and eyes. Avoid breathing vapors or mists. Do not puncture or incinerate cans.

General Hygiene Considerations
Wash hands thoroughly after handling. Do not smoke while using nor contaminate tobacco products. Use personal protection recommended in Section 8.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions
Protect from sunlight. Store at temperatures not exceeding 50 °C/ 122 °F. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

Storage Class (VCI): 2B

7.3. Specific end use(s)
Section 1 informs about identified uses.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits **Components With Workplace Control Parameters:**

Chemical Name	European Union	United Kingdom	France	Spain	Germany
Heptane (n-) 142-82-5	TWA 500 ppm TWA 2085 mg/m³	TWA: 500 ppm TWA: 2085 mg/m³ STEL: 1500 ppm STEL: 6255 mg/m³	TWA: 400 ppm TWA: 1668 mg/m³ TWA: 1000 mg/m³ STEL: 500 ppm STEL: 2085 mg/m³ STEL: 1500 mg/m³	TWA: 500 ppm TWA: 2085 mg/m³	TWA: 500 ppm TWA: 2100 mg/m³
n-Butyl acetate 123-86-4	-	TWA: 150 ppm TWA: 724 mg/m³ STEL: 200 ppm STEL: 966 mg/m³	TWA: 150 ppm TWA: 710 mg/m³ STEL: 200 ppm STEL: 940 mg/m³	TWA: 150 ppm TWA: 724 mg/m³ STEL: 200 ppm STEL: 965 mg/m³	TWA: 62 ppm TWA: 300 mg/m³
Dimethyl ether 115-10-6	TWA 1000 ppm TWA 1920 mg/m³	TWA: 400 ppm TWA: 766 mg/m³ STEL: 500 ppm STEL: 958 mg/m³	TWA: 1000 ppm TWA: 1920 mg/m³	TWA: 1000 ppm TWA: 1920 mg/m³	TWA: 1000 ppm TWA: 1900 mg/m³
Ethanol 64-17-5	-	TWA: 1000 ppm TWA: 1920 mg/m³ STEL: 3000 ppm STEL: 5760 mg/m³	TWA: 1000 ppm TWA: 1900 mg/m³ STEL: 5000 ppm STEL: 9500 mg/m³	STEL: 1000 ppm STEL: 1910 mg/m³	TWA: 500 ppm TWA: 960 mg/m³
Carbon Dioxide 124-38-9	TWA: 5000 ppm TWA: 9000 mg/m³	TWA: 5000 ppm TWA: 9150 mg/m³ STEL: 15000 ppm STEL: 27400 mg/m³	TWA: 5000 ppm TWA: 9000 mg/m³	TWA: 5000 ppm TWA: 9150 mg/m³	TWA: 5000 ppm TWA: 9100 mg/m³
Propan-2-ol 67-63-0	-	TWA: 400 ppm TWA: 999 mg/m³ STEL: 500 ppm STEL: 1250 mg/m³	STEL: 400 ppm STEL: 980 mg/m³	TWA: 200 ppm TWA: 500 mg/m³ STEL: 400 ppm STEL: 1000 mg/m³	TWA: 200 ppm TWA: 500 mg/m³
Chemical Name	**Italy**	**Portugal**	**Netherlands**	**Finland**	**Denmark**
Heptane (n-) 142-82-5	TWA: 500 ppm TWA: 2085 mg/m³	TWA: 500 ppm TWA: 2085 mg/m³ STEL: 500 ppm	TWA: 1200 mg/m³ STEL: 1600 mg/m³	TWA: 300 ppm TWA: 1200 mg/m³ STEL: 500 ppm STEL: 2100 mg/m³	TWA: 200 ppm TWA: 820 mg/m³
n-Butyl acetate 123-86-4	-	TWA: 150 ppm STEL: 200 ppm	-	TWA: 150 ppm TWA: 720 mg/m³ STEL: 200 ppm STEL: 960 mg/m³	TWA: 150 ppm TWA: 710 mg/m³
Dimethyl ether 115-10-6	TWA: 1000 ppm TWA: 1920 mg/m³	TWA: 1000 ppm TWA: 1920 mg/m³	TWA: 950 mg/m³ STEL: 1500 mg/m³	TWA: 1000 ppm TWA: 2000 mg/m³	TWA: 1000 ppm TWA: 1920 mg/m³
Ethanol 64-17-5	-	TWA: 1000 ppm	TWA: 260 mg/m³ STEL: 1900 mg/m³ H*	TWA: 1000 ppm TWA: 1900 mg/m³ STEL: 1300 ppm STEL: 2500 mg/m³	TWA: 1000 ppm TWA: 1900 mg/m³

Carbon Dioxide 124-38-9	TWA: 5000 ppm TWA: 9000 mg/m³	TWA: 5000 ppm TWA: 9000 mg/m³ STEL: 30000 ppm	TWA: 9000 mg/m³	TWA: 5000 ppm TWA: 9100 mg/m³	TWA: 5000 ppm TWA: 9000 mg/m³
Propan-2-ol 67-63-0	-	TWA: 200 ppm STEL: 400 ppm	-	TWA: 200 ppm TWA: 500 mg/m³ STEL: 250 ppm STEL: 620 mg/m³	TWA: 200 ppm TWA: 490 mg/m³
Chemical Name	**Austria**	**Switzerland**	**Poland**	**Norway**	**Ireland**
Heptane (n-) 142-82-5	TWA: 500 ppm TWA: 2000 mg/m³ STEL 2000 ppm STEL 8000 mg/m³	TWA: 400 ppm TWA: 1600 mg/m³ STEL: 400 ppm STEL: 1600 mg/m³	STEL: 2000 mg/m³ TWA: 1200 mg/m³	TWA: 200 ppm TWA: 800 mg/m³ TWA: 40 ppm TWA: 275 mg/m³ STEL: 200 ppm STEL: 800 mg/m³ STEL: 40 ppm STEL: 275 mg/m³	TWA: 500 ppm TWA: 2085 mg/m³ STEL: 1500 ppm STEL: 6255 mg/m³
n-Butyl acetate 123-86-4	TWA: 100 ppm TWA: 480 mg/m³ STEL 100 ppm STEL 480 mg/m³ Ceiling 100 ppm Ceiling 480 mg/m³	TWA: 100 ppm TWA: 480 mg/m³ STEL: 200 ppm STEL: 960 mg/m³	STEL: 950 mg/m³ TWA: 200 mg/m³	TWA: 75 ppm TWA: 355 mg/m³ STEL: 75 ppm STEL: 335 mg/m³	TWA: 150 ppm TWA: 710 mg/m³ STEL: 200 ppm STEL: 950 mg/m³
Dimethyl ether 115-10-6	TWA: 1000 ppm TWA: 1910 mg/m³ STEL 2000 ppm STEL 3820 mg/m³	TWA: 1000 ppm TWA: 1910 mg/m³	TWA: 1000 mg/m³	TWA: 200 ppm TWA: 384 mg/m³ STEL: 200 ppm STEL: 384 mg/m³	TWA: 1000 ppm TWA: 1920 mg/m³ STEL: 3000 ppm STEL: 5760 mg/m³
Ethanol 64-17-5	TWA: 1000 ppm TWA: 1900 mg/m³ STEL 2000 ppm STEL 3800 mg/m³	TWA: 500 ppm TWA: 960 mg/m³ STEL: 1000 ppm STEL: 1920 mg/m³	TWA: 1900 mg/m³	TWA: 500 ppm TWA: 950 mg/m³ STEL: 500 ppm STEL: 950 mg/m³	STEL: 1000 ppm
Carbon Dioxide 124-38-9	TWA: 5000 ppm TWA: 9000 mg/m³ STEL 10000 ppm STEL 18000 mg/m³	TWA: 5000 ppm TWA: 9000 mg/m³	STEL: 27000 mg/m³ TWA: 9000 mg/m³	TWA: 5000 ppm TWA: 9000 mg/m³ STEL: 5000 ppm STEL: 9000 mg/m³	TWA: 5000 ppm TWA: 9000 mg/m³ STEL: 15000 ppm STEL: 27000 mg/m³
Propan-2-ol 67-63-0	TWA: 200 ppm TWA: 500 mg/m³ STEL 800 ppm STEL 2000 mg/m³	TWA: 200 ppm TWA: 500 mg/m³ STEL: 400 ppm STEL: 1000 mg/m³	STEL: 1200 mg/m³ TWA: 900 mg/m³	TWA: 100 ppm TWA: 245 mg/m³ STEL: 100 ppm STEL: 245 mg/m³	TWA: 200 ppm STEL: 400 ppm Sk*

Derived No Effect Level (DNEL)

Workers

	Acute systemic effects		***Acute local effects***		***Long-term systemic effects***		***Long-term local effects***	
Chemical Name	Dermal	Inhalation	Dermal	Inhalation	Dermal	Inhalation	Dermal	Inhalation
Heptane (n-) 142-82-5	n.a.	n.a.	n.a.	n.a.	300 mg/kg bw/day	2085 mg/m³	n.a.	n.a.
n-Butyl Acetate 123-86-4	n.a.	960 mg/m³	n.a.	960 mg/m³	n.a.	480 mg/m³	n.a.	480 mg/m³
Dimethyl ether 115-10-6	n.a.	n.a.	n.a.	n.a.	n.a.	1894 mg/m³	n.a.	n.a.
Ethanol 64-17-5	n.a.	n.a.	n.a.	1900 mg/m³	343 mg/kg bw/day	950 mg/m³	n.a.	n.a.
Propan-2-ol 67-63-0	n.a.	n.a.	n.a.	n.a.	888 mg/kg bw/day	500 mg/m³	n.a.	n.a.

Consumers

	Acute systemic effects			***Acute local effects***		***Long-term systemic effects***			***Long-term local effects***	
Chemical Name	Dermal	Inhalation	Oral	Dermal	Inhalation	Dermal	Inhalation	Oral	Dermal	Inhalation
Heptane (n-) 142-82-5	n.a.	n.a.	n.a.	n.a.	n.a.	149 mg/kg bw/day	477 mg/m³	149 mg/kg bw/day	n.a.	n.a.
n-Butyl acetate 123-86-4	n.a.	859.7 mg/m³	n.a.	n.a.	859.7 mg/m³	n.a.	102.34 mg/m³	n.a.	n.a.	102.34 mg/m³

Dimethyl ether 115-10-6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	471 mg/m³	n.a.	n.a.	n.a.
Ethanol 64-17-5	n.a.	n.a.	n.a.	n.a.	950 mg/m³	206 mg/kg bw/day	114 mg/m³	87 mg/kg bw/day	n.a.	n.a.
Propan-2-ol 67-63-0	n.a.	n.a.	n.a.	n.a.	n.a.	319 mg/kg bw/day	89 mg/m³	26 mg/kg bw/day	n.a.	n.a.

Predicted No Effect Concentration (PNEC)

	Chemical Name				
Compartment	Heptane (n-) 142-82-5	n-Butyl acetate 123-86-4	Dimethyl ether 115-10-6	Ethanol 64-17-5	Propan-2-ol 67-63-0
Fresh water	n.a.	0.18 mg/l	0.155 mg/l	0.96 mg/l	140.9 mg/l
Marine water	n.a.	0.018 mg/l	0.016 mg/l	0.79 mg/l	140.9 mg/l
Intermittent use/release	n.a.	0.36 mg/l	1.549 mg/l	2.75 mg/l	140.9 mg/l
Sewage treatment plant	n.a.	35.6 mg/l	160 mg/l	n.a.	2251 mg/l
Fresh water sediment	n.a.	0.981 mg/kg dry weight (d.w.)	0.681 mg/kg dry weight (d.w.)	n.a.	552 mg/kg dry weight (d.w.)
Marine sediment	n.a.	0.0981 mg/kg dry weight (d.w.)	0.069 mg/kg dry weight (d.w.)	n.a.	552 mg/kg dry weight (d.w.)
Soil	n.a.	0.0903 mg/kg dry weight (d.w.)	0.045 mg/kg dry weight (d.w.)	0.63 mg/kg dry weight (d.w.)	28 mg/kg dry weight (d.w.)
Oral (secondary poisoning)	n.a.	n.a.	n.a.	n.a.	160 mg/kg (food)

8.2. Exposure controls

Engineering Controls Ensure adequate ventilation, especially in confined areas. As a general rule, at least 10 air changes per hour are recommended at the workplace.
Showers
Eyewash stations

Personal protective equipment

Eye/face protection Avoid contact with eyes. Wear safety glasses with side shields (or goggles). EN 166.
Hand Protection Wear protective nitrile rubber, Neoprene™ or butyl rubber gloves. EN 374, EN 420.
Skin and body protection Wear suitable protective clothing.
Respiratory protection Ensure adequate ventilation, especially in confined areas. In case of insufficient ventilation, wear suitable respiratory equipment. EN 136, EN 140, EN 405.
Recommended filter type: brown AX. EN 371, EN 143, EN 149.

Environmental exposure controls Do not allow into any sewer, on the ground or into any body of water.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Properties apply to liquid (less Propellant)

Appearance:
Physical state Liquid
Color white, translucent

Odor Sweet ester odor
Odor threshold No data available

Property	**Values**	**Method - Remarks**
pH	No data available	
Melting point/Freezing point	No data available	
Boiling point/IBP and boiling range	78 - 149 °C / 173 - 301 °F	ASTM D1078
Flash point	- 4 °C / 24 °F	Tag Closed Cup
Evaporation rate	3.5	n-Butyl Acetate = 1
Flammability (solid, liquid, gas)	Flammable liquid	
Flammability Limit in Air:		

Upper flammability limit	10.7	Approx. Vol % in air
Lower flammability limit	2.02	Approx. Vol % in air
Vapor pressure	0.02	bar @ 20 °C
Relative vapor density	3.5	Air = 1
Density and/or relative density	0.76	g/ml @ 20°C
Water solubility	No data available	
Solubility(ies)	No data available	
Partition coefficient	No data available	
Autoignition temperature	No data available	
Decomposition temperature	325 - 400 °C / 600 - 750 °F	
Kinematic viscosity	No data available	
Dynamic viscosity	No data available	
Explosive properties	Not applicable	
Oxidizing properties	No data available	
Particle characteristics:		
Particle size D50	3 µm	ASTM D4464
Specific surface area	1.5-3.0 m^2/g	ASTM D4567

9.2. Other information

Pour point	No data available
Molecular weight	Not applicable
VOC Content	<= 99.0 Wt % (<= 750 g/l)
Density	760 kg/m^3 (6.33 lbs./gal.)
Coefficient of Thermal Expansion	No data available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity
Stable

10.2. Chemical stability
Stable.

Explosion data

Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	May be ignited by heat, sparks or flames. All equipment used when handling must be grounded. Use spark-resistant tools.

10.3. Possibility of hazardous reactions

Hazardous polymerization
Hazardous polymerization does not occur.

Possibility of Hazardous Reactions
None under normal processing.

10.4. Conditions to avoid

Heat, flames and sparks. Take precautionary measures against static discharges.

Decomposition temperature: 325-400°C / 600-750°F.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Carbon oxides. Fluorinated compounds. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

Product Information

Inhalation May cause irritation of respiratory tract. Aspiration into lungs can produce severe lung damage.
Do not smoke. Do not contaminate tobacco products. The thermal decomposition vapours of fluorinated polymers may cause polymer fume fever with flu-like symptoms in humans, especially when smoking contaminated tobacco.

Eye contact May cause irritation.

Skin contact May cause irritation.When operating continuously for long periods, the aerosol container can become very cold. Care should be taken to avoid skin burns.

Ingestion May be harmful if swallowed. Potential for aspiration if swallowed.

Unknown acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) > 5000 mg/kg
ATEmix (dermal) 3284 mg/kg
ATEmix (inhalation-gas) > 20000 ppm
ATEmix (inhalation-dust/mist) > 5 mg/l
ATEmix (inhalation-vapor) > 20 mg/l

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Heptane (n-)	> 5840 mg/kg (Rat)	> 2920 mg/kg (Rabbit)	> 23.3 mg/l (Rat) 4 h vapor
n-Butyl acetate	= 10760 mg/kg (Rat)	> 14100 mg/kg (Rabbit)	> 21 mg/l (Rat) 4 h vapor
Dimethyl ether	-	-	= 308.5 mg/l (Rat) 4 h
Ethanol	= 10470 mg/kg (Rat)	-	= 124.7 mg/l (Rat) 4 h
Propan-2-ol	= 5840 mg/kg (Rat)	= 13900 mg/kg (Rabbit)	> 25000 mg/m^3 (Rat) 6 h vapor

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Symptoms Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
Skin: Irritation, redness, itchiness
Eyes: Irritation, redness, watering, itchiness.

Aspiration hazard Risk of serious damage to the lungs by aspiration.

11.2. Information on other hazards

Other adverse effects No information available.

Endocrine disrupting properties This mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Regulation (EU) 2017/2100 or Regulation (EU) 2018/605 at levels of 0.1% or higher.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity Acute aquatic toxicity, Category 1; Acute Additivity Formula
Chronic aquatic toxicity, Category 1; Chronic Additivity Formula

Component Information:

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Heptane (n-) 142-82-5	10: 72 h Pseudokirchneriella subcapitata mg/l NOELR	> 13.4: 96 h Oncorhynchus mykiss mg/l LL50	3.0: 48 h Daphnia magna mg/l EL50
n-Butyl acetate 123-86-4	648: 72 h Pseudokirchneriella subcapitata mg/l EC50	18: 96 h Pimephales promelas mg/l LC50	44: 48 h Daphnia magna mg/l LC50
Ethanol 64-17-5	275: 72 h Chlorella vulgaris mg/l ErC50	15300: 96 h Pimephales promelas mg/l LC50	5012: 48 h Ceriodaphnia dubia mg/l LC50
Propan-2-ol 67-63-0	1000: 8 d Alga mg/l LOEC	9640: 96 h Pimephales promelas mg/l LC50	9714: 24 h Daphnia magna mg/l EC50

12.2. Persistence and degradability
No information available.

12.3. Bioaccumulative potential
No information available.

Component Information:

Chemical Name	Partition coefficient
Heptane (n-)	4.66
n-Butyl acetate	1.81
Dimethyl ether	-0.18
Ethanol	-0.32
Propan-2-ol	0.05

12.4. Mobility in soil
No information available.

12.5. Results of PBT and vPvB assessment
This mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher in accordance with REACH Annex XIII.

12.6. Endocrine Disrupting Properties
This mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Regulation (EU) 2017/2100 or Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7. Other adverse effects
No information available

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues/unused products Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container. Disposal should be in accordance with applicable regional, national and local laws and regulations.

Waste codes / waste designations according to EWC / AVV 16 05 04*

Other Information Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: TRANSPORT INFORMATION

IMDG

14.1 UN/ID no. UN1950
14.2 Proper shipping name Aerosols LIMITED QUANTITY
14.3 Hazard Class 2
14.4 Packing Group
14.5 Marine pollutant
Environmental hazard
14.6 Special Provisions
EmS-No. F-D, S-U
14.7 Maritime transport in bulk according to IMO instruments Not applicable

RID

14.1 UN/ID no. UN1950
14.2 Proper shipping name Aerosols
14.3 Hazard Class 2
14.4 Packing Group
14.5 Environmental hazard
14.6 Special Provisions

ADR

14.1 UN/ID no. UN1950
14.2 Proper shipping name Aerosols
14.3 Hazard Class 2
14.4 Packing Group
14.5 Environmental hazard
14.6 Special Provisions
Classification code 5F

IATA

14.1 UN/ID no.
14.2 Proper shipping name Consumer Commodity, 9, ID8000
14.3 Hazard Class
14.4 Packing Group
14.5 Environmental hazard
14.6 Special Provisions

Section 15: REGULATORY INFORMATION

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

National Regulations

France
National laws and regulations:

Chemical Name	Occupational Illnesses	Occupational Diseases
Heptane (n-) 142-82-5	RG 84	nº 601
n-Butyl acetate 123-86-4	RG 84	-
Ethanol 64-17-5	RG 84	-
Propan-2-ol 67-63-0	RG 84	-

Germany
Water hazard class (WGK) Water endangering class = 2 (self estimation)

European Union

Authorizations and/or restrictions on use:
This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).
This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV).

Chemical Name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
Heptane (n-) 142-82-5	03, 40, 57	nº 601
n-Butyl acetate 123-86-4	03	-
Ethanol 64-17-5	03	-
Propan-2-ol 67-63-0	03, 40	n° 603

Persistent Organic Pollutants
Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not applicable

International Inventories

TSCA	All substances in this product are listed as active on the TSCA Chemical Substance Inventory. This product does not contain PBT substances.
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

No information available

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under sections 2 and 3
H222 - Extremely flammable aerosol
H229 - Pressurised container: May burst if heated
H304 - May be fatal if swallowed and enters airways
H316 - Causes mild skin irritation
H336 - May cause drowsiness or dizziness
H410 - Very toxic to aquatic life with long lasting effects
H315 - Causes skin irritation
H400 - Very toxic to aquatic life
H225 - Highly flammable liquid and vapor
H226 - Flammable liquid and vapor
H220 - Extremely flammable gas

H280 - Contains gas under pressure; may explode if heated
H319 - Causes serious eye irritation

Issue Date	1992 11 01
Revision Date	2023 06 07

Supersedes v16.21, 2021 02 01

Revision Note

1992 11 01: Initial release.
1994 12 01: Modified to update component information.
1997 10 01: Modified to update component information.
1998 12 01: Modified to update component information.
1999 02 01: Modified to update component information.
2000 03 01: Modified to update component information.
2002 10 01: Modified to update transportation information.
2003 04 01: Modified to update health hazard information.
2006 04 04: Modified to conform to 16 part format of ANSI Standard Z400.1-2004.
2007 04 04: Modified to correct environmental and ecological hazards identifications.
2008 07 02: Modified to update regulatory information.
2013 03 16: Modified to update expiring issue date.
2015 06 12: Modified to conform to 29 CFR 1910 (OSHA HCS).
2015 06 12: Modified to conform to Regulation (EC) No. 1272/2008.
2016 05 11: Modified to update component information.
2021 02 01: Modified to update emergency contact information.
2023 06 07: Modified to conform to Regulation (EU) No. 2020/878.

This safety data sheet complies with the requirements of: Regulation (EU) No. 2020/878 and Regulation (EC) No. 1272/2008

End of Safety Data Sheet