

SAFETY DATA SHEET

According to EC Regulation 1907/2006/EC - revision 2020/878

Revision No. 3.7

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SECTION 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1. Product identifier

Product Name: K LAST SUPER
Product Code: 11000703K1 (CLP)
UFI: SE83-JOP7-400A-1EAJ

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

Recommended use

Dry film lubricant.

1.3. Details of the supplier of the safety data sheet

NCH UK & Ireland,
Arrowmere House, Bilston,
WV14 0QL
Tel (UK): 01902 510200, Tel (Ireland): 042 939 5502
E-mail address: technical_uk@nch.com
Website address: www.ncheurope.com

1.4. Emergency telephone number

UK - 01902 510200 (available during Office Hours)
In Republic of Ireland (available from 8am to 10pm daily): 01 809 2166

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP/GHS) and its adaptations

Aerosols: Category 1
Eye irritation: Category 2
STOT- single exposure: Category 3
H222 - Extremely flammable aerosol
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness
H229 - Pressurised container: May burst if heated
EUH066 - Repeated exposure may cause skin dryness or cracking

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP/GHS)

Contains ACETONE.

Hazard pictograms



Signal word Danger

Hazard statements

H222 - Extremely flammable aerosol
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness
H229 - Pressurised container: May burst if heated

EU Specific Hazard Statements

EUH066 - Repeated exposure may cause skin dryness or cracking

Precautionary statements

P337 + P313 - If eye irritation persists: Get medical advice/attention
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

P260 - Do not breathe mist/spray.
 Keep out of reach of children
 For industrial and institutional use only.

2.3. Other hazards

The product does not contain substances that have been identified as an endocrine disruptor.
 The components in this formulation do not meet the criteria for classification as PBT or vPvB. As defined under the regulation EC 1907/2006.

SECTION 3. COMPOSITION / INFORMATION OF INGREDIENTS

3.2 Mixture

Chemical name	CAS No	EC No (EU Index Index No)	EU - REACH reg number	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Notes
BUTANE	106-97-8	203-448-7	01-2119474691-32	25 - < 50	Press. Gas (H280) Flam. Gas 1 (H220)	K
ACETONE	67-64-1	200-662-2	01-2119471330-49	20 - < 25	Eye Irrit. 2 (H319) (H319) STOT SE 3 (H336) Flam. Liq. 2 (H225) (EUH066)	
ETHANOL	64-17-5	200-578-6	01-2119457610-43	20 - < 25	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319)	
PROPANE	74-98-6	200-827-9	01-2119486944-21	5 - < 10	Press. Gas (H280) Flam. Gas 1 (H220)	
BUTANONE	78-93-3	201-159-0	01-2119457290-43	5 - < 10	(EUH066) Flam. Liq. 2 (H225) STOT SE 3 (H336) Eye Irrit. 2 (H319)	
DIPROPYLENE GLYCOL METHYL ETHER	34590-94-8	252-104-2	01-2119450011-60	1 - < 3	-	
METHANOL	67-56-1	200-659-6	01-2119433307-44	< 1	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) STOT SE 1 (H370) Flam. Liq. 2 (H225)	

This mixture contains substances with a Community workplace exposure limit. For any H statements mentioned in this section, see the full text in section 16.

EU Notes

Note K - The classification as a carcinogen or mutagen does not apply as the substance contains less than 0.1% w/w 1,3-butadiene

Chemical name	EU - CLP (1272/2008) - Specific Concentration Limits
ETHANOL	H319 C>=50%
METHANOL	H370 C>=10% H371 3%<=C<10%

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

General advice

Avoid contact with skin, eyes and clothing. Avoid breathing vapours or mists.

Eye Contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.

Skin Contact

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth with water. Do NOT induce vomiting. If swallowed, seek medical advice immediately and show this container or label.

Inhalation

If exposed to high concentrations of the aerosol vapours, move to fresh air. If symptoms persist, call a doctor.

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

Sensitisation

No information available.

Eye contact

May cause irritation as itching and redness.

Skin contact

May cause irritation as itching or redness.

Inhalation

Inhalation of mists may result in irritation to the respiratory tract. May cause headaches, dizziness, drowsiness and nausea.

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

Notes to physician

Treat Symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use: Dry powder. Alcohol-resistant foam. Carbon dioxide (CO₂).

Extinguishing media which must not be used for safety reasons

Water jet.

5.2. Special hazards arising from the substance or mixture

Material can create slippery conditions. Pressurized container. Extremely flammable. Keep product and empty container away from heat and sources of ignition.

5.3. Advice for firefighters

Firefighters should wear a self-contained breathing apparatus and full protective gear. Cool fire-exposed containers with water spray to prevent bursting.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes, and clothing. Refer to protective measures listed in sections 7 and 8. Prevent further leakage or spillage if safe to do so. Ventilate the area. Due to the nature of the aerosol packaging, a large spill is unlikely. For a small spill, wear appropriate protective clothing, ventilate the area, absorb with an inert material and transfer all material into a properly labeled container for disposal. Use care as spills may be slippery.

6.2. Environmental precautions

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. Insoluble in water and hence will float on the surface.

6.3. Methods and material for containment and cleaning up

Methods for Containment

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). If using a cloth to wipe up a small spillage, properly dispose of the used cloth to avoid a fire risk.

Methods for Cleaning up

For the non volatile residues: Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

Refer to sections 7, 8 and 13.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid contact with skin, eyes and clothing. Avoid breathing vapours or mists. Do not eat, drink or smoke when using this product. Keep away from open flames, hot surfaces and sources of ignition. Ensure adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities

For safety reasons in case of fire, cans should be stored separately in closed containments. Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C.

7.3. Specific end use(s)

No information available.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters**Exposure Limits

If vapours, fumes or mists are generated, their concentration in the workplace area should be kept to the lowest reasonable level. For substances.

Chemical name	European Union	The United Kingdom	France	Germany	Austria
BUTANE		STEL: 750 ppm STEL: 1810 mg/m ³ TWA: 600 ppm TWA: 1450 mg/m ³	VME: 800 ppm VME: 1900 mg/m ³	AGW: 1000 ppm AGW: 2400 mg/m ³ Spitzenbegr.: 4000 ppm Spitzenbegr.: 9600 mg/m ³ MAK: 1000 ppm MAK: 2400 mg/m ³	STEL: 1600 ppm STEL: 3800 mg/m ³ TWA: 800 ppm TWA: 1900 mg/m ³
ACETONE	TWA 500 ppm TWA 1210 mg/m ³	STEL: 1500 ppm STEL: 3620 mg/m ³ TWA: 500 ppm TWA: 1210 mg/m ³	VME: 500 ppm VME: 1210 mg/m ³ VLCT: 1000 ppm VLCT: 2420 mg/m ³	AGW: 500 ppm AGW: 1200 mg/m ³ Spitzenbegr.: 1000 ppm Spitzenbegr.: 2400 mg/m ³ MAK: 500 ppm MAK: 1200 mg/m ³ BGW: 80 mg/L Bem.: DFG, Y	STEL: 2000 ppm STEL: 4800 mg/m ³ TWA: 500 ppm TWA: 1200 mg/m ³
ETHANOL		STEL: 3000 ppm STEL: 5760 mg/m ³ TWA: 1000 ppm TWA: 1920 mg/m ³	VME: 1000 ppm VME: 1900 mg/m ³ VLCT: 5000 ppm VLCT: 9500 mg/m ³	AGW: 200 ppm AGW: 380 mg/m ³ Spitzenbegr.: 800 ppm Spitzenbegr.: 1520 mg/m ³ MAK: 200 ppm MAK: 380 mg/m ³ Bem.: DFG, Y	STEL: 2000 ppm STEL: 3800 mg/m ³ TWA: 1000 ppm TWA: 1900 mg/m ³
PROPANE				AGW: 1000 ppm AGW: 1800 mg/m ³ Spitzenbegr.: 4000 ppm Spitzenbegr.: 7200 mg/m ³ MAK: 1000 ppm MAK: 1800 mg/m ³	STEL: 2000 ppm STEL: 3600 mg/m ³ TWA: 1000 ppm TWA: 1800 mg/m ³
BUTANONE	TWA 200 ppm TWA 600 mg/m ³ STEL 300 ppm STEL 900 mg/m ³	STEL: 300 ppm STEL: 899 mg/m ³ TWA: 200 ppm TWA: 600 mg/m ³ Potential for skin absorption	VME: 200 ppm VME: 600 mg/m ³ VLCT: 300 ppm VLCT: 900 mg/m ³ Peau	AGW: 200 ppm AGW: 600 mg/m ³ Spitzenbegr.: 200 ppm Spitzenbegr.: 600 mg/m ³ MAK: 200 ppm MAK: 600 mg/m ³ BGW: 2 mg/L Bem.: DFG, Y hautresorptiv	Skin STEL: 200 ppm STEL: 590 mg/m ³ TWA: 100 ppm TWA: 295 mg/m ³
DIPROPYLENE GLYCOL METHYL ETHER	TWA 50 ppm TWA 308 mg/m ³ Possibility of significant uptake through the skin	STEL: 150 ppm STEL: 924 mg/m ³ TWA: 50 ppm TWA: 308 mg/m ³ Potential for skin absorption	VME: 50 ppm VME: 308 mg/m ³ Peau	AGW: 50 ppm AGW: 310 mg/m ³ Spitzenbegr.: 50 ppm Spitzenbegr.: 310 mg/m ³ MAK: 50 ppm MAK: 310 mg/m ³ Summe aus Dampf und Aerosolen	Skin STEL: 100 ppm STEL: 614 mg/m ³ TWA: 50 ppm TWA: 307 mg/m ³
METHANOL	TWA: 200 ppm TWA: 260 mg/m ³ Possibility of significant uptake through the skin	STEL: 250 ppm STEL: 333 mg/m ³ TWA: 200 ppm TWA: 266 mg/m ³ Potential for skin absorption	VME: 200 ppm VME: 260 mg/m ³ VLCT: 1000 ppm VLCT: 1300 mg/m ³ Peau	AGW: 100 ppm AGW: 130 mg/m ³ Spitzenbegr.: 200 ppm Spitzenbegr.: 260 mg/m ³ MAK: 100 ppm MAK: 130 mg/m ³ BGW: 15 mg/L Bem.: DFG, Y hautresorptiv	Skin STEL: 800 ppm STEL: 1040 mg/m ³ TWA: 200 ppm TWA: 260 mg/m ³

Chemical name	Spain	Portugal	Italy	The Netherlands	Switzerland
BUTANE	TVA: 1000 ppm	TWA: 1000 ppm			STEL: 3200 ppm STEL: 7200 mg/m ³ TWA: 800 ppm TWA: 1900 mg/m ³ TWA: 1000 ppm
ACETONE	TVA: 500 ppm TWA: 1210 mg/m ³	STEL: 750 ppm TWA: 500 ppm TWA: 1210 mg/m ³	TWA: 500 ppm TWA: 1210 mg/m ³	STEL: 2420 mg/m ³ TWA: 1210 mg/m ³	STEL: 1000 ppm STEL: 2400 mg/m ³ TWA: 500 ppm TWA: 1200 mg/m ³
ETHANOL	STEL: 1000 ppm STEL: 1910 mg/m ³	TWA: 1000 ppm		Skin STEL: 1900 mg/m ³ TWA: 260 mg/m ³	STEL: 1000 ppm STEL: 1920 mg/m ³ TWA: 500 ppm TWA: 960 mg/m ³
PROPANE	TVA: 1000 ppm	TWA: 1000 ppm			STEL: 4000 ppm STEL: 7200 mg/m ³ TWA: 1000 ppm TWA: 1800 mg/m ³
BUTANONE	STEL: 300 ppm STEL: 900 mg/m ³ TWA: 200 ppm TWA: 600 mg/m ³	STEL: 300 ppm STEL: 900 mg/m ³ TWA: 200 ppm TWA: 600 mg/m ³	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³	Skin STEL: 900 mg/m ³ TWA: 590 mg/m ³	Skin STEL: 200 ppm STEL: 590 mg/m ³ TWA: 200 ppm TWA: 590 mg/m ³
DIPROPYLENE GLYCOL METHYL ETHER	Skin TWA: 50 ppm TWA: 308 mg/m ³	TWA: 50 ppm TWA: 308 mg/m ³ Skin	TWA: 50 ppm TWA: 308 mg/m ³ Skin	TWA: 300 mg/m ³	STEL: 50 ppm STEL: 300 mg/m ³ TWA: 50 ppm TWA: 300 mg/m ³
METHANOL	Skin TWA: 200 ppm TWA: 266 mg/m ³	STEL: 250 ppm TWA: 200 ppm TWA: 260 mg/m ³ Skin	TWA: 200 ppm TWA: 260 mg/m ³ Skin	Skin TWA: 133 mg/m ³	Skin STEL: 400 ppm STEL: 520 mg/m ³ TWA: 200 ppm TWA: 260 mg/m ³

Chemical name	Denmark	Finland	Norway	Sweden	Czech
BUTANE	TWA: 500 ppm TWA: 1200 mg/m ³	HTP (8h): 800 ppm HTP (8h): 1900 mg/m ³ HTP (15min): 1000 ppm HTP (15min): 2400 mg/m ³	TWA: 250 ppm TWA: 600 mg/m ³		
ACETONE	TWA: 250 ppm TWA: 600 mg/m ³	HTP (8h): 500 ppm HTP (8h): 1200 mg/m ³ HTP (15min): 630 ppm HTP (15min): 1500 mg/m ³	TWA: 125 ppm TWA: 295 mg/m ³	NGV: 250 ppm NGV: 600 mg/m ³ KGV: 500 ppm KGV: 1200 mg/m ³	PEL: 800mg/m ³ NPK-P: 1500mg/m ³
ETHANOL	TWA: 1000 ppm TWA: 1900 mg/m ³	HTP (8h): 1000 ppm HTP (8h): 1900 mg/m ³ HTP (15min): 1300 ppm HTP (15min): 2500 mg/m ³	TWA: 500 ppm TWA: 950 mg/m ³	NGV: 500 ppm NGV: 1000 mg/m ³ KGV: 1000 ppm KGV: 1900 mg/m ³	PEL: 1000mg/m ³ NPK-P: 3000mg/m ³
PROPANE	TWA: 1000 ppm TWA: 1800 mg/m ³	HTP (8h): 800 ppm HTP (8h): 1500 mg/m ³ HTP (15min): 1100 ppm HTP (15min): 2000 mg/m ³	TWA: 500 ppm TWA: 900 mg/m ³		
BUTANONE	TWA: 50 ppm TWA: 145 mg/m ³ Hud	HTP (8h): 20 ppm HTP (8h): 60 mg/m ³ HTP (15min): 100 ppm HTP (15min): 300 mg/m ³ lho	TWA: 75 ppm TWA: 220 mg/m ³	NGV: 50 ppm NGV: 150 mg/m ³ KGV: 300 ppm KGV: 900 mg/m ³	PEL: 600mg/m ³ NPK-P: 900mg/m ³
DIPROPYLENE GLYCOL METHYL ETHER	TWA: 50 ppm TWA: 309 mg/m ³ Hud	HTP (8h): 50 ppm HTP (8h): 310 mg/m ³ lho	TWA: 50 ppm TWA: 300 mg/m ³ Hud	NGV: 50 ppm NGV: 300 mg/m ³ KGV: 75 ppm KGV: 450 mg/m ³ Hud	PEL: 270mg/m ³ NPK-P: 550mg/m ³
METHANOL	TWA: 200 ppm TWA: 260 mg/m ³ Hud	HTP (8h): 200 ppm HTP (8h): 270 mg/m ³ HTP (15min): 250 ppm HTP (15min): 330 mg/m ³ lho	TWA: 100 ppm TWA: 130 mg/m ³ Hud	NGV: 200 ppm NGV: 250 mg/m ³ KGV: 250 ppm KGV: 350 mg/m ³ Hud	PEL: 250mg/m ³ NPK-P: 1000mg/m ³

Chemical name	Poland	Ireland
BUTANE	NDSCh: 3000 mg/m ³ NDS: 1900 mg/m ³	TWA: 1000 ppm STEL: 3000 ppm
ACETONE	NDSCh: 1800 mg/m ³ NDS: 600 mg/m ³	TWA: 500 ppm TWA: 1210 mg/m ³ STEL: 1500 ppm STEL: 3630 mg/m ³
ETHANOL	NDS: 1900 mg/m ³	STEL: 1000 ppm
PROPANE	NDS: 1800 mg/m ³	STEL: 3000 ppm
BUTANONE	NDSCh: 900 mg/m ³ NDS: 450 mg/m ³	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³ Skin
DIPROPYLENE GLYCOL METHYL ETHER	NDSCh: 480 mg/m ³ NDS: 240 mg/m ³	TWA: 50 ppm TWA: 308 mg/m ³ STEL: 150 ppm STEL: 924 mg/m ³ Skin
METHANOL	NDSCh: 300 mg/m ³ NDS: 100 mg/m ³	TWA: 200 ppm TWA: 260 mg/m ³ STEL: 600 ppm STEL: 780 mg/m ³ Skin

DNEL (Derived No-Effect Level)

Chemical name	EU - REACH (1907/2006) - DNEL	EU - REACH (1907/2006) - DNEL	EU - REACH (1907/2006) - DNEL	EU - REACH (1907/2006) - DNEL
ACETONE	general population general population workers general population workers workers	dermal oral dermal inhalation inhalation inhalation	long term exposure - systemic effects long term exposure - systemic effects long term exposure - systemic effects long term exposure - systemic effects long term exposure - systemic effects acute/short term exposure - local effects	62 mg/kg bw/day 62 mg/kg bw/day 186 mg/kg bw/day 200 mg/m ³ 1210 mg/m ³ 2420 mg/m ³
ETHANOL	general population general population general population workers workers general population workers	oral inhalation dermal dermal inhalation inhalation	long term exposure - systemic effects long term exposure - systemic effects long term exposure - systemic effects long term exposure - systemic effects long term exposure - systemic effects acute/short term exposure - local effects acute/short term exposure - local effects	87 mg/kg bw/day 114 mg/m ³ 206 mg/kg bw/day 343 mg/kg bw/day 950 mg/m ³ 950 mg/m ³ 1900 mg/m ³
BUTANONE	general population general population general population workers workers	oral inhalation dermal inhalation dermal	long term exposure - systemic effects long term exposure - systemic effects long term exposure - systemic effects long term exposure - systemic effects long term exposure - systemic effects	31 mg/kg bw/day 106 mg/m ³ 412 mg/kg bw/day 600 mg/m ³ 1161 mg/kg bw/day
DIPROPYLENE GLYCOL METHYL ETHER	general population general population general population workers workers	oral inhalation dermal dermal inhalation	long term exposure - systemic effects long term exposure - systemic effects long term exposure - systemic effects long term exposure - systemic effects long term exposure - systemic effects	36 mg/kg bw/day 37.2 mg/m ³ 121 mg/kg bw/day 283 mg/kg bw/day 308 mg/m ³
METHANOL	general population general population general population general population workers workers general population general population general population general population workers workers workers workers	dermal dermal oral oral dermal dermal inhalation inhalation inhalation inhalation inhalation inhalation inhalation	long term exposure - systemic effects acute/short term exposure - systemic effects long term exposure - systemic effects acute/short term exposure - systemic effects long term exposure - systemic effects acute/short term exposure - systemic effects long term exposure - systemic effects acute/short term exposure - systemic effects long term exposure - systemic effects acute/short term exposure - systemic effects long term exposure - systemic effects acute/short term exposure - systemic effects acute/short term exposure - local effects acute/short term exposure - local effects	4 mg/kg bw/day 4 mg/kg bw/day 4 mg/kg bw/day 4 mg/kg bw/day 20 mg/kg bw/day 20 mg/kg bw/day 26 mg/m ³ 26 mg/m ³ 26 mg/m ³ 26 mg/m ³ 26 mg/m ³ 26 mg/m ³ 130 mg/m ³ 130 mg/m ³

				130 mg/m ³
				130 mg/m ³

PNEC (Predicted No-Effect Concentration)

Chemical name	EU - REACH (1907/2006) - PNEC	EU - REACH (1907/2006) - PNEC
ACETONE	freshwater marine water freshwater (intermittent releases) sediment (freshwater) sediment (marine water) sewage treatment soil	10.6 mg/L 1.06 mg/L 21 mg/L 30.4 mg/kg sediment dw 3.04 mg/kg sediment dw 100 mg/L 29.5 mg/kg soil dw
BUTANONE	freshwater marine water freshwater (intermittent releases) food chain sediment (freshwater) sediment (marine water) sewage treatment soil	55.8 mg/L 55.8 mg/L 55.8 mg/L 1000 mg/kg food 284.74 mg/kg sediment dw 284.7 mg/kg sediment dw 709 mg/L 22.5 mg/kg soil dw
DIPROPYLENE GLYCOL METHYL ETHER	freshwater marine water freshwater (intermittent releases) sediment (freshwater) sediment (marine water) sewage treatment soil	19 mg/L 1.9 mg/L 190 mg/L 70.2 mg/kg sediment dw 7.02 mg/kg sediment dw 4168 mg/L 2.74 mg/kg soil dw
METHANOL	freshwater marine water freshwater (intermittent releases) sediment (freshwater) sediment (marine water) sewage treatment soil	20.8 mg/L 2.08 mg/L 1540 mg/L 77 mg/kg sediment dw 7.7 mg/kg sediment dw 100 mg/L 100 mg/kg soil dw

8.2. Exposure controlsEngineering Measures

Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Use personal protection equipment as per Regulation (EU) 2016/425.

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Conforming to EN 14387 (organic vapours). In case of inadequate ventilation wear respiratory protection.

Hand Protection

Wear suitable protective gloves conforming to EN 374. Type of gloves suggested :. Butyl rubber (0.7 mm). Neoprene gloves (0.4 mm). For break break through times, refer to glove manufacturer's recommendations.

Eye Protection

Safety glasses if the method of use presents the likelihood of eye contact. Approved to EN 166.

General Hygiene Considerations

Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Wash hands before before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

Information below relates to typical values and does not constitute a specification.

Appearance	Dark Gray/Black
Odour	Solvent
Physical state	Liquid
pH	Not applicable
Flash Point	< -50 °C
Specific gravity	0.71
Viscosity	Slight Viscous
Solubility	Insoluble in water
Autoignition Temperature	No data available
Boiling Point/Range	-5 °C
Melting Point/Range	No information available
Flammability Limits in Air %	No information available

Evaporation Rate	No information available
Vapour pressure	No information available
Relative vapour density	No information available
Explosive properties	No information available
Oxidising Properties	No information available
VOC content	93.1 %

9.2. Other information

No other information available

SECTION 10. STABILITY AND REACTIVITY**10.1. Reactivity**

Not considered as highly reactive. See further information below.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

The mixture itself will not dangerously react or polymerise to create hazardous conditions in normal use.

10.4. Conditions to avoid

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C. Keep away from open flames, hot surfaces, and sources of ignition.

10.5. Incompatible materials

Strong oxidising agents.

10.6. Hazardous decomposition products

None under normal storage conditions and use.

SECTION 11. TOXICOLOGICAL INFORMATION**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**Product Information

The product itself has not been tested.

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
BUTANE			= 658 g/m ³ (Rat) 4 h
ACETONE	= 5800 mg/kg (Rat)	> 15700 mg/kg (Rabbit)	= 50100 mg/m ³ (Rat) 8 h
ETHANOL	= 7060 mg/kg (Rat)		= 116.9 mg/L (Rat) 4 h = 133.8 mg/L (Rat) 4 h
PROPANE			> 800000 ppm (Rat) 15 min
BUTANONE	= 2483 mg/kg (Rat)	= 5000 mg/kg (Rabbit)	= 11700 ppm (Rat) 4 h
DIPROPYLENE GLYCOL METHYL ETHER	= 5.35 g/kg (Rat)	= 9500 mg/kg (Rabbit)	
METHANOL	5628 mg/kg (rat)	15800 mg/kg (rabbit)	64000 ppm (rat) 4 h

Sensitisation

No information available.

Skin contact

May cause irritation as itching or redness.

Inhalation

Inhalation of mists may result in irritation to the respiratory tract. May cause headaches, dizziness, drowsiness and nausea.

Eye contact

May cause irritation as itching and redness.

Carcinogenicity

There are no known carcinogenic substances in this product.

Mutagenic Effects

There are no known mutagenic substances in this product.

Reproductive Effects

There are no known substances in this product with effects on reproduction.

STOT - single exposure

STOT- single exposure: Category 3

STOT - repeated exposure

Based on available data, the classification criteria are not met

Aspiration hazard

Based on available data, the classification criteria are not met

11.2 Information on Other Hazards

The product does not contain substances that have been identified as an endocrine disruptor

SECTION 12. ECOLOGICAL INFORMATION**12.1. Toxicity**

Product Information

The product itself has not been tested.

Ecotoxicity effects

Contains substance(s) known to be hazardous to the aquatic environment.

Chemical name	Toxicity to Fish	Crustacea	Toxicity to Algae
ACETONE	LC50 4.74 - 6.33 mL/L Oncorhynchus mykiss 96 h LC50 6210 - 8120 mg/L Pimephales promelas 96 h LC50 = 8300 mg/L Lepomis macrochirus 96 h	10294 - 17704: 48 h Daphnia magna mg/L EC50 Static 12600 - 12700: 48 h Daphnia magna mg/L EC50	
ETHANOL	LC50 12.0 - 16.0 mL/L Oncorhynchus mykiss 96 h LC50 > 100 mg/L Pimephales promelas 96 h LC50 13400 - 15100 mg/L Pimephales promelas 96 h	9268 - 14221: 48 h Daphnia magna mg/L LC50 2: 48 h Daphnia magna mg/L EC50 Static	
BUTANONE	LC50 3130 - 3320 mg/L Pimephales promelas 96 h	4025 - 6440: 48 h Daphnia magna mg/L EC50 Static 5091: 48 h Daphnia magna mg/L EC50 520: 48 h Daphnia magna mg/L EC50	
DIPROPYLENE GLYCOL METHYL ETHER	LC50 > 10000 mg/L Pimephales promelas 96 h	1919: 48 h Daphnia magna mg/L LC50	
METHANOL	LC50 28500 mg/l Pimephales sp. 96h LC50 19000 mg/l Oncorhynchus mykiss 96h	EC50 >10000 mg/l Daphnia magna 48h	EC50 22000 mg/l Pseudokirchnerella subcapitata 96h

12.2. Persistence and degradability

Ecotoxicological properties are substance specific, i.e. bioaccumulation, persistence and degradability. The information is given, where available and appropriate, for substance(s) of the mixture.

12.3. Bioaccumulative potential

Bioaccumulation unlikely due to the high volatility of the product. Component information below.

Chemical name	Partition coefficient
BUTANE	2.89
ACETONE	-0.24
ETHANOL	-0.32
PROPANE	2.3
BUTANONE	0.3
DIPROPYLENE GLYCOL METHYL ETHER	-0.064
METHANOL	-0.77

12.4. Mobility in soil

The product is insoluble and floats on water.

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB. As defined under the regulation EC 1907/2006.

12.6 Endocrine disrupting properties

The product does not contain substances that have been identified as an endocrine disruptor

12.7 Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS**13.1. Waste treatment methods**Waste from Residues / Unused Products

Dispose of in accordance with local regulations.

Contaminated Packaging

Do not expose to heat, flames, sparks or other sources of ignition. Do not pierce or burn, even after use. Empty containers should be taken for local recycling, recovery or waste disposal.

EWC waste disposal No

The following EWC/ AVV waste codes may be applicable:

16 05 04* gases in pressure containers (including halons) containing dangerous substances

15 01 10* packaging containing residues of or contaminated by dangerous substances

Other Information

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific

SECTION 14. TRANSPORT INFORMATION**14.1, 14.2, 14.3, 14.4.**

IMDG/IMO

UN number or ID number	UN1950
Proper Shipping Name	Aerosols, Flammable
Transport hazard class(es)	2.1

Packing group	-
EmS-No	F-D, S-U
ADR / RID	
UN number or ID number	UN1950
Transport hazard class(es)	2.1
Packing group	-
Classification code	5F
Limited Quantity	1 L
Transport Cat. (Tunnel Restriction Code)	2 (D)
IATA/ICAO	
UN number or ID number	UN1950
Transport hazard class(es)	2.1
Packing group	-
ERG Code	10P

14.5. Environmental hazards

The mixture is not environmentally hazardous for transport

14.6. Special precautions for user

No special precautions.

14.7 Maritime transport in bulk according to IMO instruments

Packaged product, not typically transported in IBC's

Additional information

The above information is based on latest transport regulations i.e. ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport.

SECTION 15. REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

This mixture was classified in compliance with EC Regulation 1272/2008 (CLP) and its adaptations.

Other regulatory information

This product contains substances that are regulated by Regulation (EU) 2019/1148: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point. Please see. https://ec.europa.eu/home-affairs/system/files/2021-09/list_of_competent_authorities_and_national_contact_points_en.pdf.

UK - The Control of Poisons and Explosives Precursors Regulations 2023. This product contains an Explosive precursor that is on the Reportable substance list in the UK. Acquisition, introduction, possession or use of this product by the general public is restricted. All suspicious transactions, and significant disappearances and thefts should be reported. Please see details <https://www.gov.uk/government/publications/supplying-explosives-precursors/supplying-explosives-precursors-and-poison>.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out for this mixture by the supplier

SECTION 16. OTHER INFORMATION**Text of H statements mentioned in Section 3**

H220 - Extremely flammable gas. H225 - Highly flammable liquid and vapour. H301 - Toxic if swallowed. H311 - Toxic in contact with skin. H319 skin. H319 - Causes serious eye irritation. H331 - Toxic if inhaled. H336 - May cause drowsiness or dizziness. H370 - Causes damage to organs. EUH066 - Repeated exposure may cause skin dryness or cracking.

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

On the basis of test data. H222 - Extremely flammable aerosol. Calculation method. H319 - Causes serious eye irritation. H336 - May cause drowsiness or dizziness.

Prepared By Austen Pimm

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Revision summary

SDS sections updated 15 16 8

Abbreviations

REACH: Registration Evaluation Authorisation Restriction of Chemicals

EU: European Union

EC: European community

EEC: European Economic Community

UN: United Nations

CAS: Chemical Abstracts Service

PBT: Persistent Bioaccumulative Toxic

vPvB: very Persistent very Bioaccumulative

LC50: Lethal concentration, 50 percent

LD50 : Lethal dose, 50 percent

EC50: Effective concentration, 50 percent

LogPow: LogP octanol/water

VwVwS: Verwaltungsvorschrift wassergefährdende Stoffe (Administrative order relating to substances hazardous to water - Germany)

WGK: Wassergefährdungsklasse (Water Hazard Class - Germany).

AVV: Abfallverzeichnis-Verordnung (Waste Code - Germany)

ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route (European agreement governing the international carriage of dangerous goods by road)

IMDG: International Maritime Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the International carriage of Dangerous goods by rail)

EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods

ERG: Emergency Response Guidebook

IUCLID / RTECS International Uniform Chemical Information Database / Registry of Toxic Effects of Chemical Substances

GHS: Globally Harmonised System of classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

VOC: Volatile Organic Chemical

w/w: weight for weight

DMSO: Dimethyl sulphoxide

OECD: Organization for Economic Cooperation and Development

STEL: Short Term Exposure Limit

TWA: Time Weighted Average

Further Information

Component test results displayed in sections 11 and 12 are typically supplied by Chemadvisor and assembled from publicly available literature literature sources e.g. IUCLID / RTECS

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet