

LPS® 3® (Aerosol)

ITW Performance Polymers

Part Number: 00316, M00316

Version No: 7.11

Safety Data Sheet (Conforms to Annex II of REACH (1907/2006) - Regulation 2020/878)

Issue Date: 18/01/2023

Print Date: 24/02/2023

S.REACH.IRL.EN

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

1.1. Product Identifier

Product name	LPS® 3® (Aerosol)
Proper shipping name	AEROSOLS
Other means of identification	UFI:7V3T-H0HW-600A-URKY

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

Relevant identified uses	For Industrial Use Only Application is by spray atomisation from a hand held aerosol pack
Uses advised against	No specific uses advised against are identified.

1.3. Details of the manufacturer or supplier of the safety data sheet

Registered company name	ITW Performance Polymers	AlSCO Ltd (IE)	ITW Pro Brands
Address	Bay 150 Shannon Industrial Estate Shannon, County Clare V14 DF82 Ireland	Unit 13 Hillmead Industrial Estate Marshall Road Swindon, Wiltshire SN5 5FZ United Kingdom	4647 Hugh Howell Rd. Tucker, GA 30084 United States
Telephone	+353 61 771 500	01793 733900	770-243-8800
Fax	Not Available	Not Available	770-243-8899
Website	www.itwperformancepolymers.com	www.alscold.co.uk	www.itwprobrands.com
Email	customerservice.shannon@itwpp.com	info@alscold.co.uk	lpssds@itwprobrands.com

1.4. Emergency telephone number

Association / Organisation	Chemtrec	Chemtrec	Chemtrec
Emergency telephone numbers	+001 703-527-3887	+001 703-527-3887	1-800-424-9300 (inside U.S.)
Other emergency telephone numbers	01 809 2166	+420 224 919 293	+001 703-527-3887 (outside U.S.)

SECTION 2 Hazards identification

2.1. Classification of the substance or mixture

Classification according to regulation (EC) No 1272/2008 [CLP] and amendments [1]	H315 - Skin Corrosion/Irritation Category 2, H319 - Serious Eye Damage/Eye Irritation Category 2, H412 - Hazardous to the Aquatic Environment Long-Term Hazard Category 3, H222+H229 - Aerosols Category 1
Legend:	1. Classified by Chemwatch; 2. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

2.2. Label elements

Hazard pictogram(s)	 
Signal word	Danger

Hazard statement(s)

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.
H222+H229	Extremely flammable aerosol. Pressurized container: may burst if heated.

Supplementary statement(s)
Not Applicable

Precautionary statement(s) 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.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P264	Wash all exposed external body areas thoroughly after handling.

Precautionary statement(s) Response

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Precautionary statement(s) Storage

P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
-----------	--

Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
------	--

2.3. Other hazards

Inhalation, skin contact and/or ingestion may produce health damage*.
Cumulative effects may result following exposure*.
May produce discomfort of the respiratory system*.

n-nonane	Listed in the Europe Regulation (EU) 2018/1881 Specific Requirements for Endocrine Disruptors
naphtha, petroleum, hydrodesulfurised heavy	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)
naphtha, petroleum, hydrodesulfurised heavy	Listed in the Europe Regulation (EU) 2018/1881 Specific Requirements for Endocrine Disruptors
Acetone*	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)

SECTION 3 Composition / information on ingredients

3.1.Substances

See 'Composition on ingredients' in Section 3.2

3.2.Mixtures

1.CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	SCL / M-Factor	Nanoform Particle Characteristics
1.64742-47-8* 2.265-149-8 3.649-422-00-2 4.01-2119456620-43-XXXX	45-70	Petroleum Distillates light*	Aspiration Hazard Category 1; H304 [1]	0	Not Available
1.111-84-2* 2.203-913-4 3.Not Available 4.Not Available	<5	n-nonane [e]	Flammable Liquids Category 3, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Hazardous to the Aquatic Environment Long-Term Hazard Category 1, Aspiration Hazard Category 1; H226, H336, H315, H319, H410, H304 [1]	Not Available	Not Available
1.5131-66-8* 2.225-878-4 3.603-052-00-8 4.01-2119475527-28-XXXX	9	Propylene glycol Monobutyl ether*	Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2; H315, H319 [1]	0	Not Available
1.577-11-7 2.209-406-4 3.Not Available 4.Not Available	<0.25	sodium dioctyl sulfosuccinate	Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 1; H302, H315, H318 [1]	Not Available	Not Available
1.111-76-2* 2.203-905-0 3.603-014-00-0 4.Not Available	<0.25	ethylene glycol monobutyl ether *	Acute Toxicity (Dermal) Category 4, Acute Toxicity (Inhalation) Category 4, Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2; H312, H332, H302, H315, H319, EUH018,	oral: ATE = 1200 mg/kg bw	Not Available

LPS® 3® (Aerosol)

1.CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	SCL / M-Factor	Nanoform Particle Characteristics
EUH019 [1]					
1.64742-82-1.* 2.265-185-4 3.649-330-00-2 4.Not Available	<1	<u>naphtha, petroleum, hydrodesulfurised, heavy [e]</u>	Specific Target Organ Toxicity - Repeated Exposure Category 1, Aspiration Hazard Category 1; H372, H304, EUH066 [1]	Not Available	Not Available
1.67-64-1* 2.200-662-2 3.606-001-00-8 4.01-2119471330-49-XXXX	3-7	<u>Acetone*</u>	Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Flammable Liquids Category 2, Serious Eye Damage/Eye Irritation Category 2; H336, H225, H319, EUH066 [1]	0	Not Available
1.124-38-9 2.204-696-9 3.Not Available 4.Not Available	1-5	<u>carbon dioxide</u>	Gases Under Pressure (Liquefied Gas); H280, EUH044 [1]	Not Available	Not Available
Legend:			1. Classified by Chemwatch; 2. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 3. Classification drawn from C&L; * EU IOELVs available; [e] Substance identified as having endocrine disrupting properties		

SECTION 4 First aid measures

4.1. Description of first aid measures

Eye Contact	If aerosols come in contact with the eyes: ▶ Immediately hold the eyelids apart and flush the eye continuously for at least 15 minutes with fresh running water. ▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▶ Transport to hospital or doctor without delay. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If solids or aerosol mists are deposited upon the skin: ▶ Flush skin and hair with running water (and soap if available). ▶ Remove any adhering solids with industrial skin cleansing cream. ▶ DO NOT use solvents. ▶ Seek medical attention in the event of irritation.
Inhalation	If aerosols, fumes or combustion products are inhaled: ▶ Remove to fresh air. ▶ Lay patient down. Keep warm and rested. ▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. ▶ If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. ▶ Transport to hospital, or doctor.
Ingestion	Not considered a normal route of entry. ▶ If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

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

Treat symptomatically.

SECTION 5 Firefighting measures

5.1. Extinguishing media

SMALL FIRE:

- ▶ Water spray, dry chemical or CO2

LARGE FIRE:

- ▶ Water spray or fog.

5.2. Special hazards arising from the substrate or mixture

Fire Incompatibility	▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
-----------------------------	--

5.3. Advice for firefighters

Fire Fighting	FOR FIRES INVOLVING MANY GAS CYLINDERS: ▶ To stop the flow of gas, specifically trained personnel may inert the atmosphere to reduce oxygen levels thus allowing the capping of leaking container(s). ▶ Reduce the rate of flow and inject an inert gas, if possible, before completely stopping the flow to prevent flashback. ▶ DO NOT extinguish the fire until the supply is shut off otherwise an explosive re-ignition may occur. ▶ If the fire is extinguished and the flow of gas continues, used increased ventilation to prevent build-up, of explosive atmosphere. ▶ Use non-sparking tools to close container valves. ▶ Be CAUTIOUS of a Boiling Liquid Evaporating Vapour Explosion, BLEVE, if fire is impinging on surrounding containers. ▶ Direct 2500 litre/min (500 gpm) water stream onto containers above liquid level with the assistance remote monitors.
----------------------	---

Continued...

LPS® 3® (Aerosol)

	▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ May be violently or explosively reactive. ▶ Wear breathing apparatus plus protective gloves. ▶ Prevent, by any means available, spillage from entering drains or water course. ▶ If safe, switch off electrical equipment until vapour fire hazard removed. ▶ Use water delivered as a fine spray to control fire and cool adjacent area. ▶ DO NOT approach containers suspected to be hot. ▶ Cool fire exposed containers with water spray from a protected location. ▶ If safe to do so, remove containers from path of fire. ▶ Equipment should be thoroughly decontaminated after use. ----- FIRE FIGHTING PROCEDURES: ----- ▶ The only safe way to extinguish a flammable gas fire is to stop the flow of gas. ▶ If the flow cannot be stopped, allow the entire contents of the cylinder to burn while cooling the cylinder and surroundings with water from a suitable distance. ▶ Extinguishing the fire without stopping the gas flow may permit the formation of ignitable or explosive mixtures with air. These mixtures may propagate to a source of ignition. ----- SPECIAL HAZARDS ----- ▶ Excessive pressures may develop in a gas cylinder exposed in a fire; this may result in explosion. ▶ Cylinders with pressure relief devices may release their contents as a result of fire and the released gas may constitute a further source of hazard for the fire-fighter. ▶ Cylinders without pressure-relief valves have no provision for controlled release and are therefore more likely to explode if exposed to fire. ----- FIRE FIGHTING REQUIREMENTS: ----- The need for proximity, entry and flash-over protection and special protective clothing should be determined for each incident, by a competent fire-fighting safety professional.
Fire/Explosion Hazard	▶ Liquid and vapour are highly flammable. ▶ Severe fire hazard when exposed to heat or flame. ▶ Vapour forms an explosive mixture with air. ▶ Severe explosion hazard, in the form of vapour, when exposed to flame or spark. ▶ Vapour may travel a considerable distance to source of ignition. ▶ Heating may cause expansion or decomposition with violent container rupture. ▶ Aerosol cans may explode on exposure to naked flames. ▶ Rupturing containers may rocket and scatter burning materials. ▶ Hazards may not be restricted to pressure effects. ▶ May emit acrid, poisonous or corrosive fumes. ▶ On combustion, may emit toxic fumes of carbon monoxide (CO). Combustion products include: carbon monoxide (CO) carbon dioxide (CO₂) other pyrolysis products typical of burning organic material.

SECTION 6 Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

See section 8

6.2. Environmental precautions

See section 12

6.3. Methods and material for containment and cleaning up

Minor Spills	▶ Clean up all spills immediately. ▶ Avoid breathing vapours and contact with skin and eyes. ▶ Wear protective clothing, impervious gloves and safety glasses. ▶ Shut off all possible sources of ignition and increase ventilation. ▶ Wipe up. ▶ If safe, damaged cans should be placed in a container outdoors, away from all ignition sources, until pressure has dissipated. ▶ Undamaged cans should be gathered and stowed safely.
Major Spills	▶ Clear area of all unprotected personnel and move upwind. ▶ Alert Emergency Authority and advise them of the location and nature of hazard. ▶ May be violently or explosively reactive. ▶ Wear full body clothing with breathing apparatus. ▶ Prevent by any means available, spillage from entering drains and water-courses. ▶ Consider evacuation. ▶ Shut off all possible sources of ignition and increase ventilation. ▶ No smoking or naked lights within area. ▶ Use extreme caution to prevent violent reaction. ▶ Stop leak only if safe to do so. ▶ Water spray or fog may be used to disperse vapour. ▶ DO NOT enter confined space where gas may have collected. ▶ Keep area clear until gas has dispersed. ▶ DO NOT exert excessive pressure on valve; DO NOT attempt to operate damaged valve. ▶ Increase ventilation. ▶ Stop leak if safe to do so. ▶ Water spray or fog may be used to disperse / absorb vapour. ▶ Absorb or cover spill with sand, earth, inert materials or vermiculite.

Continued...

LPS® 3® (Aerosol)

- ▶ If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated.
- ▶ Undamaged cans should be gathered and stowed safely.
- ▶ Collect residues and seal in labelled drums for disposal.

6.4. Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Safe handling	▶ Avoid all personal contact, including inhalation. ▶ Wear protective clothing when risk of exposure occurs. ▶ Use in a well-ventilated area. ▶ Prevent concentration in hollows and sumps. ▶ DO NOT enter confined spaces until atmosphere has been checked. ▶ Avoid smoking, naked lights or ignition sources. ▶ Avoid contact with incompatible materials. ▶ When handling, DO NOT eat, drink or smoke. ▶ DO NOT incinerate or puncture aerosol cans. ▶ DO NOT spray directly on humans, exposed food or food utensils. ▶ Avoid physical damage to containers. ▶ Always wash hands with soap and water after handling. ▶ Work clothes should be laundered separately. ▶ Use good occupational work practice. ▶ Observe manufacturer's storage and handling recommendations contained within this SDS. ▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.
Fire and explosion protection	See section 5
Other information	▶ Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can ▶ Store in original containers in approved flammable liquid storage area. ▶ DO NOT store in pits, depressions, basements or areas where vapours may be trapped. ▶ No smoking, naked lights, heat or ignition sources. ▶ Keep containers securely sealed. Contents under pressure. ▶ Store away from incompatible materials. ▶ Store in a cool, dry, well ventilated area. ▶ Avoid storage at temperatures higher than 40 deg C. ▶ Store in an upright position. ▶ Protect containers against physical damage. ▶ Check regularly for spills and leaks. ▶ Observe manufacturer's storage and handling recommendations contained within this SDS.

7.2. Conditions for safe storage, including any incompatibilities

Suitable container	▶ Aerosol dispenser. ▶ Check that containers are clearly labelled.
Storage incompatibility	Carbon dioxide: ▶ reacts violently with strong bases and alkali metals (especially their dusts) ▶ may ignite or explode when heated or in suspended chemically active metals (and their hydrides) such as aluminium, chromium, manganese, magnesium (above 775 C), titanium (above 550 C), uranium (above 750 C) or zirconium , diethylmagnesium ▶ is incompatible with water, acrolein, acrylaldehyde, amines, anhydrous ammonia, aziridine, metal acetylides (such as lithium acetylide), caesium monoxide (moist), lithium, potassium, sodium, sodium carbide, sodium-potassium alloy, sodium peroxide, titanium ▶ may build up static electricity when discharged at high flow rates from storage cylinders or fire extinguishers - this may produce sparks resulting in ignition of flammables or explosives. ▶ may decompose to toxic carbon monoxide and flammable oxygen when exposed to electrical discharges or very high temperatures ▶ Avoid reaction with oxidising agents ▶ Compressed gases may contain a large amount of kinetic energy over and above that potentially available from the energy of reaction produced by the gas in chemical reaction with other substances
Hazard categories in accordance with Regulation (EC) No 1272/2008	P3b: Flammable Aerosols
Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of	P3b Lower- / Upper-tier requirements: 5 000 (net) / 50 000 (net)



- X — Must not be stored together
0 — May be stored together with specific preventions
+ — May be stored together

Note: Depending on other risk factors, compatibility assessment based on the table above may not be relevant to storage situations, particularly where large volumes of dangerous goods are stored and handled. Reference should be made to the Safety Data Sheets for each substance or article and risks assessed accordingly.

7.3. Specific end use(s)

See section 1.2

SECTION 8 Exposure controls / personal protection

8.1. Control parameters

Ingredient	DNELs Exposure Pattern Worker	PNECs Compartment
Petroleum Distillates light*	Oral 18.75 mg/kg bw/day (Systemic, Chronic) *	Not Available
n-nonane	Dermal 773 mg/kg bw/day (Systemic, Chronic) Inhalation 2 035 mg/m³ (Systemic, Chronic) Dermal 699 mg/kg bw/day (Systemic, Chronic) * Inhalation 608 mg/m³ (Systemic, Chronic) * Oral 699 mg/kg bw/day (Systemic, Chronic) *	3.6 µg/L (Water (Fresh)) 3.6 µg/L (Water - Intermittent release) 14 µg/L (Water (Marine)) 0.62 mg/kg sediment dw (Sediment (Fresh Water)) 0.62 mg/kg sediment dw (Sediment (Marine)) 0.25 mg/kg soil dw (Soil) 54 µg/L (STP)
Propylene glycol Monobutyl ether*	Dermal 52 mg/kg bw/day (Systemic, Chronic) Inhalation 147 mg/m³ (Systemic, Chronic) Dermal 50 % in mixture (weight basis) (Local, Chronic) Dermal 50 % in mixture (weight basis) (Local, Acute) Dermal 22 mg/kg bw/day (Systemic, Chronic) * Inhalation 43 mg/m³ (Systemic, Chronic) * Oral 12.5 mg/kg bw/day (Systemic, Chronic) * Dermal 50 % in mixture (weight basis) (Local, Chronic) * Dermal 50 % in mixture (weight basis) (Local, Acute) *	0.525 mg/L (Water (Fresh)) 0.052 mg/L (Water - Intermittent release) 5.25 mg/L (Water (Marine)) 2.36 mg/kg sediment dw (Sediment (Fresh Water)) 0.236 mg/kg sediment dw (Sediment (Marine)) 0.16 mg/kg soil dw (Soil) 10 mg/L (STP)
sodium dioctyl sulfosuccinate	Dermal 267.86 mg/kg bw/day (Systemic, Chronic) Inhalation 1 889.1 mg/m³ (Systemic, Chronic) Dermal 160.71 mg/kg bw/day (Systemic, Chronic) * Inhalation 559.01 mg/m³ (Systemic, Chronic) * Oral 17.86 mg/kg bw/day (Systemic, Chronic) *	0.18 mg/L (Water (Fresh)) 0.018 mg/L (Water - Intermittent release) 0.152 mg/L (Water (Marine)) 17.789 mg/kg sediment dw (Sediment (Fresh Water)) 1.779 mg/kg sediment dw (Sediment (Marine)) 1.04 mg/kg soil dw (Soil) 12.2 mg/L (STP)
ethylene glycol monobutyl ether	Dermal 125 mg/kg bw/day (Systemic, Chronic) Inhalation 98 mg/m³ (Systemic, Chronic) Dermal 89 mg/kg bw/day (Systemic, Acute) Inhalation 1 091 mg/m³ (Systemic, Acute) Inhalation 246 mg/m³ (Local, Acute) Dermal 75 mg/kg bw/day (Systemic, Chronic) * Inhalation 59 mg/m³ (Systemic, Chronic) * Oral 6.3 mg/kg bw/day (Systemic, Chronic) * Dermal 89 mg/kg bw/day (Systemic, Acute) * Inhalation 426 mg/m³ (Systemic, Acute) * Oral 26.7 mg/kg bw/day (Systemic, Acute) * Inhalation 147 mg/m³ (Local, Acute) *	8.8 mg/L (Water (Fresh)) 0.88 mg/L (Water - Intermittent release) 26.4 mg/L (Water (Marine)) 34.6 mg/kg sediment dw (Sediment (Fresh Water)) 3.46 mg/kg sediment dw (Sediment (Marine)) 2.33 mg/kg soil dw (Soil) 463 mg/L (STP) 0.02 g/kg food (Oral)
naphtha, petroleum, hydrosulfurised heavy	Dermal 21 mg/kg bw/day (Systemic, Chronic) Inhalation 330 mg/m³ (Systemic, Chronic) Inhalation 837.5 mg/m³ (Local, Chronic) Inhalation 1 286.4 mg/m³ (Systemic, Acute) Inhalation 1 066.67 mg/m³ (Local, Acute) Dermal 12 mg/kg bw/day (Systemic, Chronic) * Inhalation 71 mg/m³ (Systemic, Chronic) * Oral 21 mg/kg bw/day (Systemic, Chronic) * Inhalation 178.57 mg/m³ (Local, Chronic) * Inhalation 1 152 mg/m³ (Systemic, Acute) * Inhalation 640 mg/m³ (Local, Acute) *	Not Available
Acetone*	Dermal 186 mg/kg bw/day (Systemic, Chronic) Inhalation 1 210 mg/m³ (Systemic, Chronic) Inhalation 2 420 mg/m³ (Local, Acute) Dermal 62 mg/kg bw/day (Systemic, Chronic) * Inhalation 200 mg/m³ (Systemic, Chronic) * Oral 62 mg/kg bw/day (Systemic, Chronic) *	10.6 mg/L (Water (Fresh)) 1.06 mg/L (Water - Intermittent release) 21 mg/L (Water (Marine)) 30.4 mg/kg sediment dw (Sediment (Fresh Water)) 3.04 mg/kg sediment dw (Sediment (Marine)) 29.5 mg/kg soil dw (Soil) 100 mg/L (STP)

* Values for General Population

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
EU Consolidated List of Indicative Occupational Exposure Limit Values (IOELVs)	ethylene glycol monobutyl ether	2-Butoxyethanol	20 ppm / 98 mg/m3	246 mg/m3 / 50 ppm	Not Available	Skin
Ireland Occupational Exposure Limits	ethylene glycol monobutyl ether	2-Butoxyethanol (EGBE)	20 ppm / 98 mg/m3	246 mg/m3 / 50 ppm	Not Available	Sk, IOELV
EU Consolidated List of Indicative Occupational Exposure Limit Values (IOELVs)	Acetone*	Acetone	500 ppm / 1210 mg/m3	Not Available	Not Available	Not Available
Ireland Occupational Exposure Limits	Acetone*	Acetone	500 ppm / 1210 mg/m3	Not Available	Not Available	IOELV

LPS® 3® (Aerosol)

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
EU Consolidated List of Indicative Occupational Exposure Limit Values (IOELVs)	carbon dioxide	Carbon dioxide	5000 ppm / 9000 mg/m3	Not Available	Not Available	Not Available
Ireland Occupational Exposure Limits	carbon dioxide	Carbon dioxide	5000 ppm / 9000 mg/m3	Not Available	Not Available	IOELV

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
Petroleum Distillates light*	140 mg/m3	1,500 mg/m3	8,900 mg/m3
n-nonane	600 ppm	830 ppm	5,000 ppm
sodium dioctyl sulfosuccinate	5.7 mg/m3	63 mg/m3	380 mg/m3
ethylene glycol monobutyl ether	60 ppm	120 ppm	700 ppm
naphtha, petroleum, hydrodesulfurised heavy	140 mg/m3	1,500 mg/m3	8,900 mg/m3
Acetone*	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
Petroleum Distillates light*	2,500 mg/m3	Not Available
n-nonane	Not Available	Not Available
Propylene glycol Monobutyl ether*	Not Available	Not Available
sodium dioctyl sulfosuccinate	Not Available	Not Available
ethylene glycol monobutyl ether	700 ppm	Not Available
naphtha, petroleum, hydrodesulfurised heavy	2,500 mg/m3	Not Available
Acetone*	2,500 ppm	Not Available
carbon dioxide	40,000 ppm	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
n-nonane	E	≤ 0.1 ppm
Propylene glycol Monobutyl ether*	E	≤ 0.1 ppm
sodium dioctyl sulfosuccinate	E	≤ 0.01 mg/m³
naphtha, petroleum, hydrodesulfurised heavy	C	> 1 to ≤ 10 parts per million (ppm)

Notes: Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

8.2. Exposure controls

8.2.1. Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard 'physically' away from the worker and ventilation that strategically 'adds' and 'removes' air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure. General exhaust is adequate under normal conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying 'escape' velocities which, in turn, determine the 'capture velocities' of fresh circulating air required to effectively remove the contaminant.	
	Type of Contaminant:	Speed:
	aerosols, (released at low velocity into zone of active generation)	0.5-1 m/s
	direct spray, spray painting in shallow booths, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)
	Within each range the appropriate value depends on:	
	Lower end of the range	Upper end of the range
	1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
	2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity
	3: Intermittent, low production.	3: High production, heavy use
	4: Large hood or large air mass in motion	4: Small hood-local control only
	Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of	

LPS® 3® (Aerosol)

	1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.
8.2.2. Personal protection	Not Available
Eye and face protection	▶ Safety glasses with side shields. ▶ Chemical goggles. ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent] ▶ Close fitting gas tight goggles
Skin protection	See Hand protection below
Hands/feet protection	▶ No special equipment needed when handling small quantities. ▶ OTHERWISE: ▶ For potentially moderate exposures: ▶ Wear general protective gloves, eg. light weight rubber gloves. ▶ For potentially heavy exposures: ▶ Wear chemical protective gloves, eg. PVC. and safety footwear.
Body protection	See Other protection below
Other protection	▶ The clothing worn by process operators insulated from earth may develop static charges far higher (up to 100 times) than the minimum ignition energies for various flammable gas-air mixtures. This holds true for a wide range of clothing materials including cotton. ▶ Avoid dangerous levels of charge by ensuring a low resistivity of the surface material worn outermost. BREThERICK: Handbook of Reactive Chemical Hazards. No special equipment needed when handling small quantities. OTHERWISE: ▶ Overalls. ▶ Skin cleansing cream. ▶ Eyewash unit. ▶ Do not spray on hot surfaces.

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Aerosols, in common with most vapours/ mists, should never be used in confined spaces without adequate ventilation. Aerosols, containing agents designed to enhance or mask smell, have triggered allergic reactions in predisposed individuals.

8.2.3. Environmental exposure controls

See section 12

SECTION 9 Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance	Brown		
Physical state	Compressed Gas	Relative density (Water = 1)	0.87
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	230
pH (as supplied)	Not Available	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	18	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	HIGHLY FLAMMABLE.	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Available

Continued...

LPS® 3® (Aerosol)

Vapour density (Air = 1)	Not Available	VOC %	62.8
Nanoform Solubility	Not Available	Nanoform Particle Characteristics	Not Available
Particle Size	Not Available		

9.2. Other information

Not Available

SECTION 10 Stability and reactivity

10.1.Reactivity	See section 7.2
10.2. Chemical stability	▸ Elevated temperatures. ▸ Presence of open flame. ▸ Product is considered stable. ▸ Hazardous polymerisation will not occur.
10.3. Possibility of hazardous reactions	See section 7.2
10.4. Conditions to avoid	See section 7.2
10.5. Incompatible materials	See section 7.2
10.6. Hazardous decomposition products	See section 5.3

SECTION 11 Toxicological information

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

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. The vapour is discomforting WARNING: intentional misuse by concentrating/inhaling contents may be lethal.
Ingestion	Not normally a hazard due to physical form of product. Considered an unlikely route of entry in commercial/industrial environments
Skin Contact	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Spray mist may produce discomfort Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	This material can cause eye irritation and damage in some persons.
Chronic	Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems. Main route of exposure to the gas in the workplace is by inhalation.

LPS® 3® (Aerosol)	TOXICITY	IRRITATION
	Not Available	Not Available
Petroleum Distillates light*	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >2000 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1]
	Inhalation(Rat) LC50: >4.3 mg/l4h ^[1]	Skin: adverse effect observed (irritating) ^[1]
	Oral (Rat) LD50: >5000 mg/kg ^[2]	
n-nonane	TOXICITY	IRRITATION
	Inhalation(Rat) LC50: 3200 ppm/4h ^[2]	Eye: no adverse effect observed (not irritating) ^[1]
	Intravenous (Mouse) LD50: 218 mg/kg ^[2]	Skin: no adverse effect observed (not irritating) ^[1]
Propylene glycol Monobutyl ether*	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg ^[1]	Eye: adverse effect observed (irritating) ^[1]
	Oral (Rat) LD50: >2000 mg/kg ^[1]	Skin: adverse effect observed (irritating) ^[1]

LPS® 3® (Aerosol)

sodium dioctyl sulfosuccinate	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 2525 mg/kg ^[1]	Eye (rabbit): 0.250 mg - mild
	Oral (Rat) LD50: >1320 mg/kg ^[1]	Eye (rabbit): 1% - SEVERE
		Eye: adverse effect observed (irritating) ^[1]
		Skin (rabbit): 10 mg/24h-moderate
		Skin: adverse effect observed (irritating) ^[1]
ethylene glycol monobutyl ether	TOXICITY	IRRITATION
	dermal (guinea pig) LD50: 210 mg/kg ** ^[2]	Eye (rabbit): 100 mg SEVERE * [Union Carbide]
	Dermal (rabbit) LD50: 220 mg/kg ^[2]	Eye (rabbit): 100 mg/24h-moderate
	Inhalation (Human) TCLo: 100 ppm ^[2]	Eye: adverse effect observed (irritating) ^[1]
	Inhalation (Human) TCLo: 195 ppm/8h ^[2]	Skin (rabbit): 500 mg, open; mild
	Inhalation(Rat) LC50: 2210 mg/m ³ ** ^[2]	Skin: adverse effect observed (irritating) ^[1]
	Inhalation(Rat) LC50: 450 ppm * ^[2]	Skin: no adverse effect observed (not irritating) ^[1]
	Inhalation(Rat) LC50: 450 ppm/4h ^[2]	
	Intraperitoneal (Mouse) LD50: 536 mg/kg ^[2]	
	Intraperitoneal (Rabbit) LD50: 220 mg/kg ^[2]	
	Intraperitoneal (Rat) LD50: 220 mg/kg ^[2]	
	Intravenous (Mouse) LD50: 1130 mg/kg ^[2]	
	Intravenous (Rabbit) LD50: 252 mg/kg ^[2]	
	Intravenous (Rat) LD50: 307 mg/kg ^[2]	
	Oral (Guinea) LD50; 1200 mg/kg ^[2]	
	Oral (Human)LDLo: 143 mg/kg ^[2]	
	Oral (Human)TDLo: 132 mg/kg ^[2]	
	Oral (Human)TDLo: 600 mg/kg ^[2]	
	Oral (Mouse) LD50; 1167 mg/kg ^[2]	
	Oral (Mouse) LD50; 1230 mg/kg ^[2]	
	Oral (Rabbit) LD50: 300 mg/kg ^[2]	
	Oral (Rabbit) LD50: 320 mg/kg ^[2]	
	Oral (Rat)LD: 1500 mg/kg ^[2]	
	Oral (Rat)LD50: 250 mg/kg ^[2]	
	Oral (Rat)LD50: 300 mg/kg ** ^[2]	
	Oral (Rat)LD50: 470 mg/kg ^[2]	
	Oral (Rat)LD50: 917 mg/kg ^[2]	
	Oral (Rat)LDLo: 1500 mg/kg ^[2]	
	Oral (Rat)TDLo: 500 mg/kg ^[2]	
	Subcutaneous (Mouse) LDLo: 500 mg/kg ^[2]	
naphtha, petroleum, hydrodesulfurised heavy	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >1900 mg/kg ^[1]	Eye: no adverse effect observed (not irritating) ^[1]
	Inhalation(Rat) LC50: >1.58 mg/L4h ^[1]	Skin: adverse effect observed (irritating) ^[1]
	Oral (Rat) LD50: >4500 mg/kg ^[1]	
Acetone*	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 20000 mg/kg ^[2]	Eye: adverse effect observed (irritating) ^[1]
	Inhalation(Mouse) LC50; 44 mg/L4h ^[2]	Skin: no adverse effect observed (not irritating) ^[1]
	Oral (Rat) LD50: 5800 mg/kg ^[2]	
carbon dioxide	TOXICITY	IRRITATION
	Not Available	Not Available
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances	

LPS® 3® (Aerosol)

Acute Toxicity	✗	Carcinogenicity	✗
Skin Irritation/Corrosion	✓	Reproductivity	✗
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	✗
Respiratory or Skin sensitisation	✗	STOT - Repeated Exposure	✗
Mutagenicity	✗	Aspiration Hazard	✗

Legend: ✗ – Data either not available or does not fill the criteria for classification
 ✓ – Data available to make classification

11.2 Information on other hazards

11.2.1. Endocrine disrupting properties

Many chemicals may mimic or interfere with the body's hormones, known as the endocrine system. Endocrine disruptors are chemicals that can interfere with endocrine (or hormonal) systems.

Endocrine disruptors interfere with the synthesis, secretion, transport, binding, action, or elimination of natural hormones in the body. Any system in the body controlled by hormones can be derailed by hormone disruptors. Specifically, endocrine disruptors may be associated with the development of learning disabilities, deformations of the body, various cancers and sexual development problems.

Endocrine disrupting chemicals cause adverse effects in animals. But limited scientific information exists on potential health problems in humans. Because people are typically exposed to multiple endocrine disruptors at the same time, assessing public health effects is difficult.

11.2.2. Other information

See Section 11.1

SECTION 12 Ecological information

12.1. Toxicity

LPS® 3® (Aerosol)	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
Petroleum Distillates light*	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC(ECx)	3072h	Fish	1mg/l	1
	LC50	96h	Fish	2.2mg/l	4
n-nonane	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	48h	Crustacea	0.2mg/l	2
	NOEC(ECx)	504h	Crustacea	0.17mg/l	2
Propylene glycol Monobutyl ether*	Endpoint	Test Duration (hr)	Species	Value	Source
	EC0(ECx)	48h	Crustacea	>100mg/l	2
	LC50	96h	Fish	>560<1000mg/l	2
	EC50	72h	Algae or other aquatic plants	519mg/l	2
	EC50	96h	Algae or other aquatic plants	525mg/l	2
	EC50	48h	Crustacea	>100mg/l	2
sodium dioctyl sulfosuccinate	Endpoint	Test Duration (hr)	Species	Value	Source
	BCF	1008h	Fish	<0.9	7
	NOEC(ECx)	96h	Fish	0.059mg/l	4
	EC50	72h	Algae or other aquatic plants	38.1-40.8mg/l	4
	LC50	96h	Fish	12.5mg/l	1
	EC50	48h	Crustacea	6.6mg/l	2
ethylene glycol monobutyl ether	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	1700mg/l	Not Available
	EC50	72h	Algae or other aquatic plants	623mg/l	2
	EC50	48h	Crustacea	164mg/l	2
	EC10(ECx)	48h	Crustacea	7.2mg/l	2
	EC50	96h	Algae or other aquatic plants	720mg/l	2
naphtha, petroleum, hydrodesulfurised heavy	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC(ECx)	504h	Crustacea	0.097mg/l	2
	EC50	72h	Algae or other aquatic plants	0.53mg/l	2

Continued...

LPS® 3® (Aerosol)

	EC50	96h	Algae or other aquatic plants	0.58mg/l	2
Acetone*	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC(ECx)	12h	Fish	0.001mg/L	4
	LC50	96h	Fish	3744.6-5000.7mg/L	4
	EC50	72h	Algae or other aquatic plants	5600-10000mg/l	4
	EC50	96h	Algae or other aquatic plants	9.873-27.684mg/l	4
	EC50	48h	Crustacea	6098.4mg/L	5
carbon dioxide	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	35mg/l	1
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data				

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

DO NOT discharge into sewer or waterways.

12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
n-nonane	LOW	LOW
Propylene glycol Monobutyl ether*	LOW	LOW
ethylene glycol monobutyl ether	LOW (Half-life = 56 days)	LOW (Half-life = 1.37 days)
Acetone*	LOW (Half-life = 14 days)	MEDIUM (Half-life = 116.25 days)
carbon dioxide	LOW	LOW

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
Petroleum Distillates light*	LOW (BCF = 159)
n-nonane	HIGH (LogKOW = 4.7613)
Propylene glycol Monobutyl ether*	LOW (LogKOW = 0.9842)
sodium dioctyl sulfosuccinate	LOW (BCF = 3.78)
ethylene glycol monobutyl ether	LOW (BCF = 2.51)
Acetone*	LOW (BCF = 0.69)
carbon dioxide	LOW (LogKOW = 0.83)

12.4. Mobility in soil

Ingredient	Mobility
n-nonane	LOW (KOC = 934.6)
Propylene glycol Monobutyl ether*	HIGH (KOC = 1.289)
ethylene glycol monobutyl ether	HIGH (KOC = 1)
Acetone*	HIGH (KOC = 1.981)
carbon dioxide	HIGH (KOC = 1.498)

12.5. Results of PBT and vPvB assessment

	P	B	T
Relevant available data	Not Available	Not Available	Not Available
PBT	✗	✗	✗
vPvB	✗	✗	✗
PBT Criteria fulfilled?	No		
vPvB	No		

12.6. Endocrine disrupting properties

The evidence linking adverse effects to endocrine disruptors is more compelling in the environment than it is in humans. Endocrine disruptors profoundly alter reproductive physiology of ecosystems and ultimately impact entire populations. Some endocrine-disrupting chemicals are slow to break-down in the environment. That characteristic makes them potentially hazardous over long periods of time. Some well established adverse effects of endocrine disruptors in various wildlife species include; eggshell-thinning, displayed of characteristics of the opposite sex and impaired reproductive development. Other adverse changes in wildlife species that have been suggested, but not proven include; reproductive abnormalities,

Continued...

LPS® 3® (Aerosol)

immune dysfunction and skeletal deformities.

12.7. Other adverse effects

No evidence of ozone depleting properties were found in the current literature.

SECTION 13 Disposal considerations

13.1. Waste treatment methods

Product / Packaging disposal	▶ DO NOT allow wash water from cleaning or process equipment to enter drains. ▶ It may be necessary to collect all wash water for treatment before disposal. ▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. ▶ Where in doubt contact the responsible authority. ▶ Consult State Land Waste Management Authority for disposal. ▶ Discharge contents of damaged aerosol cans at an approved site. ▶ Allow small quantities to evaporate. ▶ DO NOT incinerate or puncture aerosol cans. ▶ Bury residues and emptied aerosol cans at an approved site.
Waste treatment options	Not Available
Sewage disposal options	Not Available

SECTION 14 Transport information

Labels Required

	
Marine Pollutant	NO

Land transport (ADR-RID)

14.1. UN number or ID number	1950												
14.2. UN proper shipping name	AEROSOLS												
14.3. Transport hazard class(es)	<table><tr><td>Class</td><td>2.1</td></tr><tr><td>Subrisk</td><td>Not Applicable</td></tr></table>	Class	2.1	Subrisk	Not Applicable								
Class	2.1												
Subrisk	Not Applicable												
14.4. Packing group	Not Applicable												
14.5. Environmental hazard	Not Applicable												
14.6. Special precautions for user	<table><tr><td>Hazard identification (Kemler)</td><td>Not Applicable</td></tr><tr><td>Classification code</td><td>5F</td></tr><tr><td>Hazard Label</td><td>2.1</td></tr><tr><td>Special provisions</td><td>190 327 344 625</td></tr><tr><td>Limited quantity</td><td>1 L</td></tr><tr><td>Tunnel Restriction Code</td><td>2 (D)</td></tr></table>	Hazard identification (Kemler)	Not Applicable	Classification code	5F	Hazard Label	2.1	Special provisions	190 327 344 625	Limited quantity	1 L	Tunnel Restriction Code	2 (D)
Hazard identification (Kemler)	Not Applicable												
Classification code	5F												
Hazard Label	2.1												
Special provisions	190 327 344 625												
Limited quantity	1 L												
Tunnel Restriction Code	2 (D)												

Air transport (ICAO-IATA / DGR)

14.1. UN number	1950														
14.2. UN proper shipping name	Aerosols, flammable														
14.3. Transport hazard class(es)	<table><tr><td>ICAO/IATA Class</td><td>2.1</td></tr><tr><td>ICAO / IATA Subrisk</td><td>Not Applicable</td></tr><tr><td>ERG Code</td><td>10L</td></tr></table>	ICAO/IATA Class	2.1	ICAO / IATA Subrisk	Not Applicable	ERG Code	10L								
ICAO/IATA Class	2.1														
ICAO / IATA Subrisk	Not Applicable														
ERG Code	10L														
14.4. Packing group	Not Applicable														
14.5. Environmental hazard	Not Applicable														
14.6. Special precautions for user	<table><tr><td>Special provisions</td><td>A145 A167 A802</td></tr><tr><td>Cargo Only Packing Instructions</td><td>203</td></tr><tr><td>Cargo Only Maximum Qty / Pack</td><td>150 kg</td></tr><tr><td>Passenger and Cargo Packing Instructions</td><td>203</td></tr><tr><td>Passenger and Cargo Maximum Qty / Pack</td><td>75 kg</td></tr><tr><td>Passenger and Cargo Limited Quantity Packing Instructions</td><td>Y203</td></tr><tr><td>Passenger and Cargo Limited Maximum Qty / Pack</td><td>30 kg G</td></tr></table>	Special provisions	A145 A167 A802	Cargo Only Packing Instructions	203	Cargo Only Maximum Qty / Pack	150 kg	Passenger and Cargo Packing Instructions	203	Passenger and Cargo Maximum Qty / Pack	75 kg	Passenger and Cargo Limited Quantity Packing Instructions	Y203	Passenger and Cargo Limited Maximum Qty / Pack	30 kg G
Special provisions	A145 A167 A802														
Cargo Only Packing Instructions	203														
Cargo Only Maximum Qty / Pack	150 kg														
Passenger and Cargo Packing Instructions	203														
Passenger and Cargo Maximum Qty / Pack	75 kg														
Passenger and Cargo Limited Quantity Packing Instructions	Y203														
Passenger and Cargo Limited Maximum Qty / Pack	30 kg G														

Sea transport (IMDG-Code / GGVSee)

14.1. UN number	1950	
14.2. UN proper shipping name	AEROSOLS	
14.3. Transport hazard class(es)	IMDG Class	2.1
	IMDG Subrisk	Not Applicable
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	EMS Number	F-D, S-U
	Special provisions	63 190 277 327 344 381 959
	Limited Quantities	1000 ml

Inland waterways transport (ADN)

14.1. UN number	1950	
14.2. UN proper shipping name	AEROSOLS	
14.3. Transport hazard class(es)	2.1	Not Applicable
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	Classification code	5F
	Special provisions	190; 327; 344; 625
	Limited quantity	1 L
	Equipment required	PP, EX, A
	Fire cones number	1

14.7. Maritime transport in bulk according to IMO instruments

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
Petroleum Distillates light*	Not Available
n-nonane	Not Available
Propylene glycol Monobutyl ether*	Not Available
sodium dioctyl sulfosuccinate	Not Available
ethylene glycol monobutyl ether	Not Available
naphtha, petroleum, hydrodesulfurised heavy	Not Available
Acetone*	Not Available
carbon dioxide	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
Petroleum Distillates light*	Not Available
n-nonane	Not Available
Propylene glycol Monobutyl ether*	Not Available
sodium dioctyl sulfosuccinate	Not Available
ethylene glycol monobutyl ether	Not Available
naphtha, petroleum, hydrodesulfurised heavy	Not Available
Acetone*	Not Available
carbon dioxide	Not Available

SECTION 15 Regulatory information

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

Petroleum Distillates light* is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
Europe EC Inventory
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)
European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI

n-nonane is found on the following regulatory lists
Europe EC Inventory

Propylene glycol Monobutyl ether* is found on the following regulatory lists
Europe EC Inventory
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

sodium dioctyl sulfosuccinate is found on the following regulatory lists
Europe EC Inventory

ethylene glycol monobutyl ether is found on the following regulatory lists
EU Consolidated List of Indicative Occupational Exposure Limit Values (IOELVs)
Europe EC Inventory
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

naphtha, petroleum, hydrodesulfurised heavy is found on the following regulatory lists
Chemical Footprint Project - Chemicals of High Concern List
EU REACH Regulation (EC) No 1907/2006 - Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles
EU REACH Regulation (EC) No 1907/2006 - Annex XVII (Appendix 2) Carcinogens: Category 1 B
EU REACH Regulation (EC) No 1907/2006 - Annex XVII (Appendix 4) Germ cell mutagens: Category 1 B
Europe EC Inventory

Acetone* is found on the following regulatory lists
EU Consolidated List of Indicative Occupational Exposure Limit Values (IOELVs)
EU REACH Regulation (EC) No 1907/2006 - Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles
Europe EC Inventory

carbon dioxide is found on the following regulatory lists
EU Consolidated List of Indicative Occupational Exposure Limit Values (IOELVs)
Europe EC Inventory
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : Directives 98/24/EC, - 92/85/EEC, - 94/33/EC, - 2008/98/EC, - 2010/75/EU; Commission Regulation (EU) 2020/878; Regulation (EC) No 1272/2008 as updated through ATPs.

Information according to 2012/18/EU (Seveso III):

Seveso Category	P3b
-----------------	-----

15.2. Chemical safety assessment

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

ECHA SUMMARY

Ingredient	CAS number	Index No	ECHA Dossier
Petroleum Distillates light*	64742-47-8*	649-422-00-2	01-2119456620-43-XXXX

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Asp. Tox. 1	GHS08; Dgr	H304
2	Asp. Tox. 1; STOT SE 3; Aquatic Chronic 2; STOT SE 3; STOT RE 2; Acute Tox. 4; Acute Tox. 4; Skin Corr. 1B; Acute Tox. 4; Muta. 1B; Carc. 1B; Flam. Liq. 2; STOT SE 2	GHS08; Dgr; GHS02; GHS09; GHS05	H304; H336; H411; H335; H373; H302; H312; H314; H332; H340; H350; H225; H371

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
n-nonane	111-84-2*	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
-------------------------------	-----------------------------------	--------------------------------	--------------------------

LPS® 3® (Aerosol)

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Eye Irrit. 2	GHS07; Wng	H319
2	Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; STOT SE 3; Aquatic Acute 1; Aquatic Chronic 1; Eye Irrit. 2; Acute Tox. 3; STOT SE 3	GHS02; GHS08; GHS09; Dgr; GHS06; GHS03; GHS05	H226; H304; H315; H336; H410; H319; H400; H331; H335; H302; H311

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
Propylene glycol Monobutyl ether*	5131-66-8*	603-052-00-8	01-2119475527-28-XXXX

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Skin Irrit. 2; Eye Irrit. 2	GHS07; Wng	H315; H319
2	Skin Irrit. 2; Eye Irrit. 2; Unst. Expl.; Flam. Gas 2; Aerosol 1; Flam. Liq. 1; Flam. Sol. 2; Org. Perox. C; Pyr. Liq. 1; Self-heat. 1; Water-react. 1; Ox. Gas 1; Ox. Liq. 1; Liq.; Met. Corr. 1; Acute Tox. 3; Asp. Tox. 1; Acute Tox. 3; Skin Sens. 1; Acute Tox. 4; Resp. Sens. 1; STOT SE 3; Muta. 2; Carc. 2; Repr. 1B; Lact.; STOT RE 1; Aquatic Acute 1; Aquatic Chronic 3	Wng; GHS01; GHS08; GHS05; GHS09; GHS04; GHS06	H315; H319; H226; H400

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
sodium dioctyl sulfosuccinate	577-11-7	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Skin Irrit. 2; Eye Dam. 1	GHS05; Dgr	H315; H318
2	Skin Irrit. 2; Eye Dam. 1; Acute Tox. 4; Flam. Liq. 3; STOT SE 3; STOT SE 3; Acute Tox. 4; Aquatic Acute 1; Aquatic Chronic 1	GHS05; Dgr; GHS02; GHS04; GHS06; GHS09	H315; H318; H302; H226; H335; H336; H332; H410

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
ethylene glycol monobutyl ether	111-76-2*	603-014-00-0	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Acute Tox. 4; Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; Acute Tox. 4	GHS07; Wng	H302; H312; H315; H319; H332
2	Skin Irrit. 2; Flam. Liq. 2; Skin Sens. 1; Aquatic Chronic 2; Acute Tox. 2; Acute Tox. 2; Repr. 2; STOT SE 1; STOT RE 2; Acute Tox. 3; Eye Dam. 1; Muta. 2; Carc. 2	GHS06; Dgr; GHS08; GHS05	H315; H310; H330; H361; H370; H373; H412; H301; H317; H318; H341; H351

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
naphtha, petroleum, hydrodesulfurised heavy	64742-82-1.*	649-330-00-2	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Asp. Tox. 1; Muta. 1B; Carc. 1B	GHS08; Dgr	H304; H340; H350
2	Asp. Tox. 1; Skin Irrit. 2; STOT SE 3; STOT RE 1; Aquatic Chronic 2; Muta. 1B; Carc. 1B; Flam. Liq. 1; Eye Irrit. 2; STOT SE 3; Acute Tox. 4; Repr. 1B	GHS08; GHS02; GHS09; Dgr	H304; H315; H336; H372; H411; H340; H350; H224; H335; H319; H332; H360

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
Acetone*	67-64-1*	606-001-00-8	01-2119471330-49-XXXX

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Liq. 2; Eye Irrit. 2; STOT SE 3	GHS07; GHS02; Dgr	H225; H319; H336
2	Flam. Liq. 2; Eye Irrit. 2A; STOT SE 3; STOT SE 3; STOT SE 3; Skin Irrit. 2; Skin Sens. 1; Aquatic Chronic 2	Dgr; GHS01; GHS08; GHS06; GHS09	H225; H319; H336; H371; H228; H315; H312; H335; H302; H332; H340; H317; H411

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
carbon dioxide	124-38-9	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Comp.	GHS04; Wng	H280

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

LPS® 3® (Aerosol)

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
2	Comp.; Ref. Liq.; Acute Tox. 4; STOT SE 3	GHS04; GHS07; Dgr	H280; H281; H332; H335
1	Flam. Liq. 2; Carc. 1A; Aquatic Chronic 3	GHS08; GHS02; Dgr	H225; H350; H412
2	Flam. Liq. 2; Carc. 1A; Aquatic Chronic 3	GHS08; GHS02; Dgr	H225; H350; H412

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

National Inventory Status

National Inventory	Status
Australia - AIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (Petroleum Distillates light*; n-nonane; Propylene glycol Monobutyl ether*; sodium dioctyl sulfosuccinate; ethylene glycol monobutyl ether; naphtha, petroleum, hydrodesulfurised heavy; Acetone*; carbon dioxide)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	Yes
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	Yes
Vietnam - NCI	Yes
Russia - FBEPH	Yes
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

SECTION 16 Other information

Revision Date	18/01/2023
Initial Date	22/12/2022

Full text Risk and Hazard codes

H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H280	Contains gas under pressure; may explode if heated.
H281	Contains refrigerated gas; may cause cryogenic burns or injury.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H351	Suspected of causing cancer.
H360	May damage fertility or the unborn child.
H361	Suspected of damaging fertility or the unborn child.
H370	Causes damage to organs.
H371	May cause damage to organs.

LPS® 3® (Aerosol)

H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Other information

Ingredients with multiple cas numbers

Name	CAS No
sodium dioctyl sulfosuccinate	577-11-7, 53023-94-2, 51910-13-5, 52624-44-9, 59030-04-5, 60202-21-3, 66812-62-2, 67924-68-9, 75418-10-9, 76689-26-4, 78207-03-1, 105956-73-8, 106396-28-5, 110162-65-7, 113255-61-1, 130390-93-1, 135843-72-0, 138893-51-3, 141092-35-5, 201816-76-4, 202352-75-8, 209122-63-4, 209453-97-4, 835616-33-6

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

EN 166 Personal eye-protection
EN 340 Protective clothing
EN 374 Protective gloves against chemicals and micro-organisms
EN 13832 Footwear protecting against chemicals
EN 133 Respiratory protective devices

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

Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	Classification Procedure
Skin Corrosion/Irritation Category 2, H315	Minimum classification
Serious Eye Damage/Eye Irritation Category 2, H319	Minimum classification
Hazardous to the Aquatic Environment Long-Term Hazard Category 3, H412	Calculation method
Aerosols Category 1, H222+H229	On basis of test data

Powered by AuthorITe, from Chemwatch.