

LPS® FORCE 842® (Aerosol)

Alsco Ltd (GB)

Part Number: 02516, M02516

Version No: 3.9

Safety data sheet according to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758

Issue Date: 25/01/2024

Print Date: 26/01/2024

S.REACH.GB.EN

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

1.1. Product Identifier

Product name	LPS® FORCE 842® (Aerosol)
Proper shipping name	AEROSOLS
Other means of identification	None

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

Sectors of Use	SU21 Consumer uses
Relevant identified uses	Use according to manufacturer's directions. For Industrial Use Only
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	Alsco Ltd (GB)	ITW Pro Brands. -GA
Address	Unit 13 Hillmead Industrial Estate Marshall Road Swindon, Wiltshire SN5 5FZ United Kingdom	4647 Hugh Howell Rd. Tucker, GA United States
Telephone	+44 1793 733 900	770-243-8800
Fax	Not Available	Not Available
Website	www.alscoltd.co.uk	www.itwprobrands.com
Email	info@alscoltd.co.uk	lpssds@itwprobrands.com

1.4. Emergency telephone number

Association / Organisation	Dykem/Dymon/Scrubs = Call InfoTrac For_LPS & Other Brands = Call Chemtrec	Dykem/Dymon/Scrubs = Call InfoTrac For_LPS & Other Brands = Call Chemtrec
Emergency telephone numbers	+44 330 027 0156 (InfoTrac)+001 703-527-3887 (Chemtrec)	1-800-535-5053 (InfoTrac Inside US) 1-800-424-9300 (Chemtrec Inside US)
Other emergency telephone numbers	844 892 0111	1-352-323-3500 (Infotrac Outside US) +001 703-527-3887 (Chemtrec Outside US)

SECTION 2 Hazards identification

2.1. Classification of the substance or mixture

Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567 [1]	H222+H229 - Aerosols Category 1, H315 - Skin Corrosion/Irritation Category 2, H319 - Serious Eye Damage/Eye Irritation Category 2, H336 - Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, H411 - Hazardous to the Aquatic Environment Long-Term Hazard Category 2
Legend:	1. Classified by Chemwatch; 2. Classification drawn from GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567

2.2. Label elements

Hazard pictogram(s)	  
Signal word	Danger

Hazard statement(s)

H222+H229	Extremely flammable aerosol. Pressurized container: may burst if heated.
H315	Causes skin irritation.

LPS® FORCE 842® (Aerosol)

H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

Supplementary statement(s)

EUH208	Contains tricresyl phosphate, Proprietary Rosin Adduct Ester. May produce an allergic reaction.
--------	---

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.
P271	Use only a well-ventilated area.
P261	Avoid breathing gas.
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.
P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.
P391	Collect spillage.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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

P405	Store locked up.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

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

2-methylpentane	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)
Isopropanol*	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)
n-pentane	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)
n-hexane	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)
1,2,4-trimethyl benzene	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)
naphtha petroleum, light aromatic solvent	Determined to have endocrine-disrupting properties according to Europe Regulation (EU) 528/2012, Europe Regulation (EU) 2017/2100, and Europe Regulation (EU) 2018/605
tricresyl phosphate	Determined to have endocrine-disrupting properties according to Europe Regulation (EU) 528/2012, Europe Regulation (EU) 2017/2100, and Europe Regulation (EU) 2018/605
propane	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)
butane	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)
iso-butane	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	Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567	SCL / M-Factor	Nanoform Particle Characteristics
1. 107-83-5 2.203-523-4 3.601-007-00-7 4.Not Available	15-40	<u>2-methylpentane</u>	Flammable Liquids Category 2, Aspiration Hazard Category 1, Skin Corrosion/Irritation Category 2, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Hazardous to the Aquatic Environment Long-Term Hazard Category 2; H225, H304, H315, H336, H411 [2]	Not Available	Not Available

LPS® FORCE 842® (Aerosol)

1. CAS No 2. EC No 3. Index No 4. REACH No	%[weight]	Name	Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567	SCL / M-Factor	Nanoform Particle Characteristics
1. 67-63-0* 2. 200-661-7 3. 603-117-00-0 4. 01-2119457558-25-XXXX	15-40	<u>Isopropanol*</u>	Flammable Liquids Category 2, Serious Eye Damage/Eye Irritation Category 2, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3; H225, H319, H336 [1]	0	Not Available
1. 74-98-6* 2. 200-827-9 3. 601-003-00-5 4. Not Available	<20	<u>propane</u>	Flammable Gases Category 1A, Gases Under Pressure; H220, H280, EUH044 [1]	Not Available	Not Available
1. 109-66-0 2. 203-692-4 3. 601-006-00-1 4. Not Available	1-5	<u>n-pentane</u> *	Flammable Liquids Category 2, Aspiration Hazard Category 1, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Hazardous to the Aquatic Environment Long-Term Hazard Category 2; H225, H304, H336, H411 [2]	Not Available	Not Available
1. 106-97-8 2. 203-448-7 3. 601-004-00-0[601-004-01-8 4. Not Available	1-5	<u>butane</u>	Flammable Gases Category 1A, Gases Under Pressure (Liquefied Gas); H220, H280, EUH044 [1]	Not Available	Not Available
1. 75-28-5 2. 200-857-2 3. 601-004-00-0[601-004-01-8 4. Not Available	1-5	<u>iso-butane</u>	Flammable Gases Category 1A, Gases Under Pressure (Liquefied Gas); H220, H280, EUH044 [1]	Not Available	Not Available
1. 95-63-6* 2. 202-436-9 3. 601-043-00-3 4. Not Available	0.5-1.5	<u>1,2,4-trimethylbenzene</u> *	Flammable Liquids Category 3, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Acute Toxicity (Inhalation) Category 4, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, Hazardous to the Aquatic Environment Long-Term Hazard Category 2; H226, H315, H319, H332, H335, H411 [1]	Not Available	Not Available
1. 64742-95-6 2. 247-093-6[265-199-0 3. 649-356-00-4 4. Not Available	0.5-1.5	<u>naphtha petroleum, light aromatic solvent</u> [e]	Flammable Liquids Category 3, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Hazardous to the Aquatic Environment Long-Term Hazard Category 2; H226, H336, H411, EUH066 [1]	Not Available	Not Available
1. Not Available 2. Not Available 3. Not Available 4. Not Available	<0.7	<u>Proprietary Rosin Adduct Ester</u>	Sensitisation (Skin) Category 1B, Serious Eye Damage/Eye Irritation Category 2; H317, H319 [1]	Not Available	Not Available
1. 110-54-3 2. 203-777-6[438-390-3 3. 601-037-00-0 4. Not Available	<0.5	<u>n-hexane</u> *	Flammable Liquids Category 2, Aspiration Hazard Category 1, Skin Corrosion/Irritation Category 2, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Reproductive Toxicity Category 2, Specific Target Organ Toxicity - Repeated Exposure Category 2, Hazardous to the Aquatic Environment Long-Term Hazard Category 2; H225, H304, H315, H336, H361f, H373, H411 [2]	STOT RE 2; H373: C ≥ 5 %	Not Available
1. 1330-78-5* 2. 215-548-8 3. Not Available 4. Not Available	<0.3	<u>tricresyl phosphate</u> [e]	Sensitisation (Skin) Category 1, Reproductive Toxicity Category 2, Specific Target Organ Toxicity - Repeated Exposure Category 2, Hazardous to the Aquatic Environment Acute Hazard Category 1, Hazardous to the Aquatic Environment Long-Term Hazard Category 1; H317, H361, H373, H400, H410 [1]	Not Available	Not Available
Legend:	1. Classified by Chemwatch; 2. Classification drawn from GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567; 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	▶ If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.

Continued...

LPS® FORCE 842® (Aerosol)

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**

- ▶ Alcohol stable foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.
- ▶ Water spray or fog - Large fires only.

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	
Fire/Explosion Hazard	carbon dioxide (CO2) other pyrolysis products typical of burning organic material. Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions. WARNING: Aerosol containers may present pressure related hazards.

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 personnel and move upwind. ▶ 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 courses ▶ No smoking, naked lights or ignition sources. ▶ 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. ▶ 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	Even with proper grounding and bonding, this material can still accumulate an electrostatic charge. If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapour mixtures can occur. ▶ 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.
----------------------	---

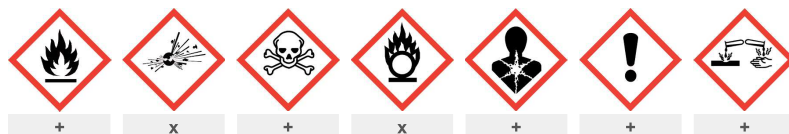
Continued...

LPS® FORCE 842® (Aerosol)

	▶ 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	

7.2. Conditions for safe storage, including any incompatibilities

Suitable container	▶ Aerosol dispenser. ▶ Check that containers are clearly labelled.
Storage incompatibility	Avoid reaction with oxidising agents.
Hazard categories in accordance with Regulation (EC) No 1272/2008	P3b: Flammable Aerosols, E2: Hazardous to the Aquatic Environment in Category Chronic 2
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) E2 Lower- / Upper-tier requirements: 200 / 500



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
2-methylpentane	Dermal 1 601 mg/kg bw/day (Systemic, Chronic) Inhalation 88.8 mg/m ³ (Systemic, Chronic) Inhalation 353.3 mg/m ³ (Systemic, Acute) Dermal 961 mg/kg bw/day (Systemic, Chronic) * Inhalation 26.5 mg/m ³ (Systemic, Chronic) * Oral 1 mg/kg bw/day (Systemic, Chronic) * Inhalation 212 mg/m ³ (Systemic, Acute) *	Not Available
Isopropanol*	Dermal 8.3 mg/kg bw/day (Systemic, Chronic) Inhalation 29.4 mg/m ³ (Systemic, Chronic) Inhalation 850 mg/m ³ (Local, Chronic) Inhalation 1 000 mg/m ³ (Systemic, Acute) Inhalation 1 900 mg/m ³ (Local, Acute) Dermal 4.2 mg/kg bw/day (Systemic, Chronic) * Inhalation 7.2 mg/m ³ (Systemic, Chronic) * Oral 4.2 mg/kg bw/day (Systemic, Chronic) * Inhalation 151 mg/m ³ (Local, Chronic) * Inhalation 178 mg/m ³ (Systemic, Acute) * Oral 51 mg/kg bw/day (Systemic, Acute) * Inhalation 950 mg/m ³ (Local, Acute) *	Not Available
n-pentane	Dermal 432 mg/kg bw/day (Systemic, Chronic) Inhalation 3 000 mg/m ³ (Systemic, Chronic) Dermal 214 mg/kg bw/day (Systemic, Chronic) * Inhalation 643 mg/m ³ (Systemic, Chronic) * Oral 214 mg/kg bw/day (Systemic, Chronic) *	Not Available
n-hexane	Dermal 11 mg/kg bw/day (Systemic, Chronic) Inhalation 75 mg/m ³ (Systemic, Chronic) Dermal 5.3 mg/kg bw/day (Systemic, Chronic) * Inhalation 16 mg/m ³ (Systemic, Chronic) * Oral 4 mg/kg bw/day (Systemic, Chronic) *	Not Available

Continued...

LPS® FORCE 842® (Aerosol)

Ingredient	DNELs Exposure Pattern Worker	PNECs Compartment
1,2,4-trimethyl benzene	Dermal 16 171 mg/kg bw/day (Systemic, Chronic) Inhalation 100 mg/m³ (Systemic, Chronic) Inhalation 100 mg/m³ (Local, Chronic) Inhalation 100 mg/m³ (Systemic, Acute) Inhalation 100 mg/m³ (Local, Acute) Dermal 9 512 mg/kg bw/day (Systemic, Chronic) * Inhalation 29.4 mg/m³ (Systemic, Chronic) * Oral 15 mg/kg bw/day (Systemic, Chronic) * Inhalation 29.4 mg/m³ (Local, Chronic) * Inhalation 29.4 mg/m³ (Systemic, Acute) * Inhalation 29.4 mg/m³ (Local, Acute) *	0.12 mg/L (Water (Fresh)) 0.12 mg/L (Water - Intermittent release) 0.12 mg/L (Water (Marine)) 13.56 mg/kg sediment dw (Sediment (Fresh Water)) 13.56 mg/kg sediment dw (Sediment (Marine)) 2.34 mg/kg soil dw (Soil) 2.41 mg/L (STP)
naphtha petroleum, light aromatic solvent	Inhalation 1.9 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) Inhalation 0.41 mg/m³ (Systemic, Chronic) * Inhalation 178.57 mg/m³ (Local, Chronic) * Inhalation 1 152 mg/m³ (Systemic, Acute) * Inhalation 640 mg/m³ (Local, Acute) *	Not Available
tricresyl phosphate	Dermal 0.41 mg/kg bw/day (Systemic, Chronic) Inhalation 0.18 mg/m³ (Systemic, Chronic) Dermal 0.15 mg/kg bw/day (Systemic, Chronic) * Inhalation 0.03 mg/m³ (Systemic, Chronic) * Oral 0.02 mg/kg bw/day (Systemic, Chronic) *	0.001 mg/L (Water (Fresh)) 0.001 mg/L (Water - Intermittent release) 0 mg/L (Water (Marine)) 2.05 mg/kg sediment dw (Sediment (Fresh Water)) 0.205 mg/kg sediment dw (Sediment (Marine)) 1.01 mg/kg soil dw (Soil) 100 mg/L (STP) 0.65 mg/kg food (Oral)

* Values for General Population

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
UK Workplace Exposure Limits (WELs).	Isopropanol*	Propan-2-ol	400 ppm / 999 mg/m3	1250 mg/m3 / 500 ppm	Not Available	Not Available
UK Workplace Exposure Limits (WELs).	n-pentane	Pentane	600 ppm / 1800 mg/m3	Not Available	Not Available	Not Available
UK Workplace Exposure Limits (WELs).	n-hexane	n-Hexane	20 ppm / 72 mg/m3	Not Available	Not Available	Not Available
UK Workplace Exposure Limits (WELs).	1,2,4-trimethyl benzene	Trimethylbenzenes, all isomers or mixtures	25 ppm / 125 mg/m3	Not Available	Not Available	Not Available
UK Workplace Exposure Limits (WELs).	butane	Butane	600 ppm / 1450 mg/m3	1810 mg/m3 / 750 ppm	Not Available	Carc, (only applies if Butane contains more than 0.1% of buta-1,3-diene)

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
2-methylpentane	1,000 ppm	11000** ppm	66000*** ppm
Isopropanol*	400 ppm	2000* ppm	12000** ppm
n-pentane	3000* ppm	33000*** ppm	200000*** ppm
n-hexane	260 ppm	Not Available	Not Available
1,2,4-trimethyl benzene	140 mg/m3	360 mg/m3	2,200 mg/m3
1,2,4-trimethyl benzene	Not Available	Not Available	480 ppm
naphtha petroleum, light aromatic solvent	1,200 mg/m3	6,700 mg/m3	40,000 mg/m3
propane	Not Available	Not Available	Not Available
butane	Not Available	Not Available	Not Available
iso-butane	5500* ppm	17000** ppm	53000*** ppm

Ingredient	Original IDLH	Revised IDLH
2-methylpentane	Not Available	Not Available
Isopropanol*	2,000 ppm	Not Available
n-pentane	1,500 ppm	Not Available
n-hexane	1,100 ppm	Not Available
1,2,4-trimethyl benzene	Not Available	Not Available
naphtha petroleum, light aromatic solvent	Not Available	Not Available
tricresyl phosphate	Not Available	Not Available
Proprietary Rosin Adduct Ester	Not Available	Not Available
propane	2,100 ppm	Not Available

Continued...

LPS® FORCE 842® (Aerosol)

Ingredient	Original IDLH	Revised IDLH
butane	Not Available	1,600 ppm
iso-butane	Not Available	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
2-methylpentane	E	≤ 0.1 ppm
tricresyl phosphate	E	≤ 0.1 ppm
Proprietary Rosin Adduct Ester	E	≤ 0.1 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	CARE: Use of a quantity of this material in confined space or poorly ventilated area, where rapid build up of concentrated atmosphere may occur, could require increased ventilation and/or protective gear 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. <table border="1"> <tr> <td>Type of Contaminant:</td><td>Speed:</td></tr> <tr> <td>aerosols, (released at low velocity into zone of active generation)</td><td>0.5-1 m/s</td></tr> <tr> <td>direct spray, spray painting in shallow booths, gas discharge (active generation into zone of rapid air motion)</td><td>1-2.5 m/s (200-500 f/min.)</td></tr> </table> Within each range the appropriate value depends on: <table border="1"> <tr> <td>Lower end of the range</td><td>Upper end of the range</td></tr> <tr> <td>1: Room air currents minimal or favourable to capture</td><td>1: Disturbing room air currents</td></tr> <tr> <td>2: Contaminants of low toxicity or of nuisance value only.</td><td>2: Contaminants of high toxicity</td></tr> <tr> <td>3: Intermittent, low production.</td><td>3: High production, heavy use</td></tr> <tr> <td>4: Large hood or large air mass in motion</td><td>4: Small hood-local control only</td></tr> </table> 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 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.	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.)	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
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.)																
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																
8.2.2. Individual protection measures, such as personal protective equipment																	
Eye and face protection	▶ Safety glasses with side shields. ▶ Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent] ▶ 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].																
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	No special equipment needed when handling small quantities. OTHERWISE: ▶ Overalls. ▶ Skin cleansing cream.																

LPS® FORCE 842® (Aerosol)

- ▶ Eyewash unit.
- ▶ Do not spray on hot surfaces.

Respiratory protection

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	Dark		
Physical state	Liquified Gas	Relative density (Water = 1)	0.70-0.75
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
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)	Not Applicable	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	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
Vapour density (Air = 1)	Not Available	VOC %	95
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 toxicological effects**

Inhaled	Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of
----------------	---

Continued...

LPS® FORCE 842® (Aerosol)

	co-ordination, and vertigo. The vapour is discomforting WARNING: Intentional misuse by concentrating/inhaling contents may be lethal.										
Ingestion	The material has NOT been classified by EC Directives or other classification systems as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence. Considered an unlikely route of entry in commercial/industrial environments Accidental ingestion of the material may be damaging to the health of the individual.										
Skin Contact	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition Spray mist may produce discomfort 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	Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility.										
LPS® FORCE 842® (Aerosol)	<table> <tr> <th>TOXICITY</th><th>IRRITATION</th></tr> <tr> <td>Not Available</td><td>Not Available</td></tr> </table>	TOXICITY	IRRITATION	Not Available	Not Available						
TOXICITY	IRRITATION										
Not Available	Not Available										
2-methylpentane	<table> <tr> <th>TOXICITY</th><th>IRRITATION</th></tr> <tr> <td>Oral (Rat) LD50: ~15.84 mg/kg^[1]</td><td>Not Available</td></tr> </table>	TOXICITY	IRRITATION	Oral (Rat) LD50: ~15.84 mg/kg ^[1]	Not Available						
TOXICITY	IRRITATION										
Oral (Rat) LD50: ~15.84 mg/kg ^[1]	Not Available										
Isopropanol*	<table> <tr> <th>TOXICITY</th><th>IRRITATION</th></tr> <tr> <td>Dermal (rabbit) LD50: 12800 mg/kg^[2]</td><td>Not Available</td></tr> <tr> <td>Inhalation(Mouse) LC50: 53 mg/L4h^[2]</td><td></td></tr> <tr> <td>Oral (Mouse) LD50: 3600 mg/kg^[2]</td><td></td></tr> </table>	TOXICITY	IRRITATION	Dermal (rabbit) LD50: 12800 mg/kg ^[2]	Not Available	Inhalation(Mouse) LC50: 53 mg/L4h ^[2]		Oral (Mouse) LD50: 3600 mg/kg ^[2]			
TOXICITY	IRRITATION										
Dermal (rabbit) LD50: 12800 mg/kg ^[2]	Not Available										
Inhalation(Mouse) LC50: 53 mg/L4h ^[2]											
Oral (Mouse) LD50: 3600 mg/kg ^[2]											
n-pentane	<table> <tr> <th>TOXICITY</th><th>IRRITATION</th></tr> <tr> <td>Dermal (rabbit) LD50: 3000 mg/kg^[2]</td><td>Not Available</td></tr> <tr> <td>Inhalation(Rat) LC50: >25.3 mg/L4h^[1]</td><td></td></tr> <tr> <td>Oral (Rat) LD50: >2000 mg/kg^[1]</td><td></td></tr> </table>	TOXICITY	IRRITATION	Dermal (rabbit) LD50: 3000 mg/kg ^[2]	Not Available	Inhalation(Rat) LC50: >25.3 mg/L4h ^[1]		Oral (Rat) LD50: >2000 mg/kg ^[1]			
TOXICITY	IRRITATION										
Dermal (rabbit) LD50: 3000 mg/kg ^[2]	Not Available										
Inhalation(Rat) LC50: >25.3 mg/L4h ^[1]											
Oral (Rat) LD50: >2000 mg/kg ^[1]											
n-hexane	<table> <tr> <th>TOXICITY</th><th>IRRITATION</th></tr> <tr> <td>Dermal (rabbit) LD50: >2000 mg/kg^[1]</td><td>Eye(rabbit): 10 mg - mild</td></tr> <tr> <td>Inhalation(Rat) LC50: 48000 ppm4h^[2]</td><td></td></tr> <tr> <td>Oral (Rat) LD50: 28710 mg/kg^[2]</td><td></td></tr> </table>	TOXICITY	IRRITATION	Dermal (rabbit) LD50: >2000 mg/kg ^[1]	Eye(rabbit): 10 mg - mild	Inhalation(Rat) LC50: 48000 ppm4h ^[2]		Oral (Rat) LD50: 28710 mg/kg ^[2]			
TOXICITY	IRRITATION										
Dermal (rabbit) LD50: >2000 mg/kg ^[1]	Eye(rabbit): 10 mg - mild										
Inhalation(Rat) LC50: 48000 ppm4h ^[2]											
Oral (Rat) LD50: 28710 mg/kg ^[2]											
1,2,4-trimethyl benzene	<table> <tr> <th>TOXICITY</th><th>IRRITATION</th></tr> <tr> <td>Inhalation(Rat) LC50: 18000 mg/m3/4h^[2]</td><td>Not Available</td></tr> </table>	TOXICITY	IRRITATION	Inhalation(Rat) LC50: 18000 mg/m3/4h ^[2]	Not Available						
TOXICITY	IRRITATION										
Inhalation(Rat) LC50: 18000 mg/m3/4h ^[2]	Not Available										
naphtha petroleum, light aromatic solvent	<table> <tr> <th>TOXICITY</th><th>IRRITATION</th></tr> <tr> <td>Dermal (rabbit) LD50: >1900 mg/kg^[1]</td><td>Eye: no adverse effect observed (not irritating)^[1]</td></tr> <tr> <td>Inhalation(Rat) LC50: >4.42 mg/L4h^[1]</td><td>Skin: adverse effect observed (irritating)^[1]</td></tr> <tr> <td>Oral (Rat) LD50: >4500 mg/kg^[1]</td><td></td></tr> </table>	TOXICITY	IRRITATION	Dermal (rabbit) LD50: >1900 mg/kg ^[1]	Eye: no adverse effect observed (not irritating) ^[1]	Inhalation(Rat) LC50: >4.42 mg/L4h ^[1]	Skin: adverse effect observed (irritating) ^[1]	Oral (Rat) LD50: >4500 mg/kg ^[1]			
TOXICITY	IRRITATION										
Dermal (rabbit) LD50: >1900 mg/kg ^[1]	Eye: no adverse effect observed (not irritating) ^[1]										
Inhalation(Rat) LC50: >4.42 mg/L4h ^[1]	Skin: adverse effect observed (irritating) ^[1]										
Oral (Rat) LD50: >4500 mg/kg ^[1]											
tricesyl phosphate	<table> <tr> <th>TOXICITY</th><th>IRRITATION</th></tr> <tr> <td>Oral (Human)TDLo: 70 mg/kg/14d^[2]</td><td>Eye (rabbit): 500 mg/24h - mild</td></tr> <tr> <td>Oral (Rat) LD50: 5190 mg/kg^[2]</td><td>Eye: no adverse effect observed (not irritating)^[1]</td></tr> <tr> <td></td><td>Skin (rabbit): 500 mg - mild</td></tr> <tr> <td></td><td>Skin: no adverse effect observed (not irritating)^[1]</td></tr> </table>	TOXICITY	IRRITATION	Oral (Human)TDLo: 70 mg/kg/14d ^[2]	Eye (rabbit): 500 mg/24h - mild	Oral (Rat) LD50: 5190 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1]		Skin (rabbit): 500 mg - mild		Skin: no adverse effect observed (not irritating) ^[1]
TOXICITY	IRRITATION										
Oral (Human)TDLo: 70 mg/kg/14d ^[2]	Eye (rabbit): 500 mg/24h - mild										
Oral (Rat) LD50: 5190 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1]										
	Skin (rabbit): 500 mg - mild										
	Skin: no adverse effect observed (not irritating) ^[1]										
Proprietary Rosin Adduct Ester	<table> <tr> <th>TOXICITY</th><th>IRRITATION</th></tr> <tr> <td>Not Available</td><td>Not Available</td></tr> </table>	TOXICITY	IRRITATION	Not Available	Not Available						
TOXICITY	IRRITATION										
Not Available	Not Available										

LPS® FORCE 842® (Aerosol)

propane	TOXICITY	IRRITATION
	Inhalation(Rat) LC50: 364726.819 ppm4h ^[2]	Not Available
butane	TOXICITY	IRRITATION
	Inhalation(Rat) LC50: 658 mg/l4h ^[2]	Not Available
iso-butane	TOXICITY	IRRITATION
	Inhalation(Rat) LC50: >13023 ppm4h ^[1]	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	

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® FORCE 842® (Aerosol)	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
2-methylpentane	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	96h	Algae or other aquatic plants	4.321mg/l	2
	EC50(ECx)	96h	Algae or other aquatic plants	4.321mg/l	2
Isopropanol*	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	>1000mg/l	1
	EC50	48h	Crustacea	7550mg/l	4
	EC50	96h	Algae or other aquatic plants	>1000mg/l	1
	LC50	96h	Fish	>1400mg/l	4
	EC50(ECx)	24h	Algae or other aquatic plants	0.011mg/L	4
n-pentane	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	1.26mg/l	2
	EC50	48h	Crustacea	2.3mg/l	2
	LC50	96h	Fish	4.26mg/l	2
	EC50(ECx)	8h	Algae or other aquatic plants	1mg/l	1
n-hexane	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	113mg/l	4
	EC50(ECx)	4h	Algae or other aquatic plants	0.1202mg/l	4

Continued...

LPS® FORCE 842® (Aerosol)

1,2,4-trimethyl benzene	Endpoint	Test Duration (hr)	Species	Value	Source
	BCF	1344h	Fish	31-207	7
	EC50	96h	Algae or other aquatic plants	2.356mg/l	2
	EC50	48h	Crustacea	ca.6.14mg/l	1
	EC50(ECx)	96h	Algae or other aquatic plants	2.356mg/l	2
	LC50	96h	Fish	3.41mg/l	2
naphtha petroleum, light aromatic solvent	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	19mg/l	1
	EC50	48h	Crustacea	6.14mg/l	1
	EC50	96h	Algae or other aquatic plants	64mg/l	2
	NOEC(ECx)	72h	Algae or other aquatic plants	1mg/l	1
triclesyl phosphate	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	48h	Crustacea	0.146mg/L	2
	EC50	96h	Algae or other aquatic plants	0.29mg/l	4
	LC50	96h	Fish	0.061-0.11mg/l	4
	NOEC(ECx)	840h	Fish	0.00032mg/l	4
Proprietary Rosin Adduct Ester	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
propane	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
butane	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	96h	Algae or other aquatic plants	7.71mg/l	2
	LC50	96h	Fish	24.11mg/l	2
	EC50(ECx)	96h	Algae or other aquatic plants	7.71mg/l	2
iso-butane	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	96h	Algae or other aquatic plants	7.71mg/l	2
	LC50	96h	Fish	24.11mg/l	2
	EC50(ECx)	96h	Algae or other aquatic plants	7.71mg/l	2
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			

Toxic 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
2-methylpentane	LOW	LOW
Isopropanol*	LOW (Half-life = 14 days)	LOW (Half-life = 3 days)
n-pentane	LOW	LOW
n-hexane	LOW	LOW
1,2,4-trimethyl benzene	LOW (Half-life = 56 days)	LOW (Half-life = 0.67 days)
triclesyl phosphate	HIGH	HIGH
propane	LOW	LOW
butane	LOW	LOW
iso-butane	HIGH	HIGH

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
2-methylpentane	LOW (LogKOW = 3.2145)

Continued...

LPS® FORCE 842® (Aerosol)

Ingredient	Bioaccumulation
Isopropanol*	LOW (LogKOW = 0.05)
n-pentane	LOW (BCF = 2.35)
n-hexane	MEDIUM (LogKOW = 3.9)
1,2,4-trimethyl benzene	LOW (BCF = 275)
tricresyl phosphate	HIGH (LogKOW = 6.3425)
propane	LOW (LogKOW = 2.36)
butane	LOW (LogKOW = 2.89)
iso-butane	LOW (BCF = 1.97)

12.4. Mobility in soil

Ingredient	Mobility
2-methylpentane	LOW (KOC = 124.9)
Isopropanol*	HIGH (KOC = 1.06)
n-pentane	LOW (KOC = 80.77)
n-hexane	LOW (KOC = 149)
1,2,4-trimethyl benzene	LOW (KOC = 717.6)
tricresyl phosphate	LOW (KOC = 358300)
propane	LOW (KOC = 23.74)
butane	LOW (KOC = 43.79)
iso-butane	LOW (KOC = 35.04)

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, 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	
HAZCHEM	Not Applicable

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)	Class 2.1 Subsidiary Hazard Not Applicable
14.4. Packing group	Not Applicable
14.5. Environmental hazard	Environmentally hazardous
14.6. Special precautions for user	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 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)	ICAO/IATA Class 2.1 ICAO / IATA Subsidiary Hazard Not Applicable ERG Code 10L
14.4. Packing group	Not Applicable
14.5. Environmental hazard	Environmentally hazardous
14.6. Special precautions for user	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 Subsidiary Hazard Not Applicable
14.4. Packing group	Not Applicable
14.5. Environmental hazard	Marine Pollutant
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

LPS® FORCE 842® (Aerosol)

14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Environmentally hazardous	
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

14.7.1. 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
2-methylpentane	Not Available
Isopropanol*	Not Available
n-pentane	Not Available
n-hexane	Not Available
1,2,4-trimethyl benzene	Not Available
naphtha petroleum, light aromatic solvent	Not Available
tricresyl phosphate	Not Available
Proprietary Rosin Adduct Ester	Not Available
propane	Not Available
butane	Not Available
iso-butane	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
2-methylpentane	Not Available
Isopropanol*	Not Available
n-pentane	Not Available
n-hexane	Not Available
1,2,4-trimethyl benzene	Not Available
naphtha petroleum, light aromatic solvent	Not Available
tricresyl phosphate	Not Available
Proprietary Rosin Adduct Ester	Not Available
propane	Not Available
butane	Not Available
iso-butane	Not Available

SECTION 15 Regulatory information

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

2-methylpentane is found on the following regulatory lists

Great Britain GB mandatory classification and labelling list (GB MCL)

Isopropanol* is found on the following regulatory lists

Great Britain GB Biocidal Active Substances

Great Britain GB mandatory classification and labelling list (GB MCL)

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

UK Workplace Exposure Limits (WELs).

n-pentane is found on the following regulatory lists

Great Britain GB mandatory classification and labelling list (GB MCL)

UK Workplace Exposure Limits (WELs).

n-hexane is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

Great Britain GB mandatory classification and labelling (GB MCL) technical reports

Great Britain GB mandatory classification and labelling list (GB MCL)

UK Workplace Exposure Limits (WELs).

1,2,4-trimethyl benzene is found on the following regulatory lists

Great Britain GB mandatory classification and labelling list (GB MCL)
UK Workplace Exposure Limits (WELs).

naphtha petroleum, light aromatic solvent is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
Great Britain GB mandatory classification and labelling list (GB MCL)
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

tricresyl phosphate is found on the following regulatory lists

Not Applicable

Proprietary Rosin Adduct Ester is found on the following regulatory lists

Not Applicable

propane is found on the following regulatory lists

Great Britain GB mandatory classification and labelling list (GB MCL)

butane is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
Great Britain GB mandatory classification and labelling list (GB MCL)
UK Workplace Exposure Limits (WELs).

iso-butane is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
Great Britain GB mandatory classification and labelling list (GB MCL)

Additional Regulatory Information

Not Applicable

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, E2
-----------------	---------

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
2-methylpentane	107-83-5	601-007-00-7	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Liq. 2; Asp. Tox. 1; Skin Irrit. 2; STOT SE 3; Aquatic Chronic 2	GHS02; GHS08; GHS09; Dgr	H225; H304; H315; H336; H411
2	Asp. Tox. 1; Skin Irrit. 2; STOT SE 3; STOT SE 3; Aquatic Acute 1; Aquatic Chronic 1; Eye Irrit. 2; Flam. Liq. 1; Expl. 1.4; Repr. 2; STOT RE 1	GHS08; Dgr; GHS09; GHS01; GHS06	H304; H315; H336; H400; H410; H319; H335; H224; H204; H361; H372

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

Ingredient	CAS number	Index No	ECHA Dossier
Isopropanol*	67-63-0*	603-117-00-0	01-2119457558-25-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	GHS02; GHS07; Dgr	H225; H319; H336
2	Flam. Liq. 2; STOT SE 3; STOT SE 3; STOT SE 1; Acute Tox. 4; Acute Tox. 4; Skin Corr. 1C; Acute Tox. 3; Eye Dam. 1	GHS02; Dgr; GHS08; GHS05; GHS06; GHS03	H225; H319; H336; H335; H370; H302; H312; H314; H331; H340

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

Ingredient	CAS number	Index No	ECHA Dossier
n-pentane	109-66-0	601-006-00-1	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Liq. 2; Asp. Tox. 1; STOT SE 3; Aquatic Chronic 2	GHS08; GHS02; GHS09; Dgr	H225; H304; H336; H411
2	Flam. Liq. 1; Asp. Tox. 1; STOT SE 3; Aquatic Chronic 2; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3	GHS08; GHS09; Dgr; GHS01	H224; H304; H336; H411; H315; H319; H335

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

Ingredient	CAS number	Index No	ECHA Dossier
n-hexane	110-54-3	601-037-00-0	Not Available

LPS® FORCE 842® (Aerosol)

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Liq. 2; Asp. Tox. 1; Skin Irrit. 2; STOT SE 3; Repr. 2; STOT RE 2; Aquatic Chronic 2	GHS02; GHS08; GHS09; Dgr	H225; H304; H315; H336; H411
2	Flam. Liq. 2; Asp. Tox. 1; Skin Irrit. 2; STOT SE 3; STOT RE 1; Aquatic Chronic 2; Eye Irrit. 2; Repr. 2; STOT SE 3; Acute Tox. 3; STOT SE 2	GHS08; GHS02; GHS09; Dgr	H225; H304; H315; H336; H372; H411; H319; H335; H331; H360

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

Ingredient	CAS number	Index No	ECHA Dossier
1,2,4-trimethyl benzene	95-63-6*	601-043-00-3	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Liq. 3; Skin Irrit. 2; Eye Irrit. 2; Acute Tox. 4; STOT SE 3; Aquatic Chronic 2	GHS02; GHS07; GHS09; Wng	H226; H315; H319; H332; H335; H411
2	Flam. Liq. 3; Eye Irrit. 2; Acute Tox. 4; STOT SE 3; Aquatic Chronic 2; Asp. Tox. 1; Skin Corr. 1B; STOT SE 3; STOT RE 1	GHS09; GHS08; Dgr; GHS01; GHS05	H226; H319; H332; H335; H411; H304; H336; H314; H370; H372

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

Ingredient	CAS number	Index No	ECHA Dossier
naphtha petroleum, light aromatic solvent	64742-95-6.	649-356-00-4	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; STOT SE 3; Aquatic Chronic 2	GHS08; GHS02; GHS09; Dgr	H226; H304; H315; H319; H335; H336
2	Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; STOT SE 3; Aquatic Chronic 2	GHS08; GHS02; GHS09; Dgr	H226; H304; H315; H319; H335; H336; H411
1	Asp. Tox. 1; Muta. 1B; Carc. 1B	GHS08; Dgr	H304; H340; H350
2	Asp. Tox. 1; Muta. 1B; Carc. 1B; Skin Irrit. 2; STOT SE 3; Aquatic Chronic 2; Repr. 2; Flam. Liq. 1; Eye Irrit. 2; STOT SE 3; Acute Tox. 4; Aquatic Acute 1; Acute Tox. 4; STOT RE 1	GHS08; Dgr; GHS02; GHS09	H304; H340; H350; H315; H336; H411; H361; H224; H335; H318; H332; H302; H372

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

Ingredient	CAS number	Index No	ECHA Dossier
tricesyl phosphate	1330-78-5*	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 Sens. 1; Repr. 2; STOT RE 2; Aquatic Acute 1; Aquatic Chronic 1	Wng	H317; H361; H373; H400; H410
2	Skin Sens. 1; Aquatic Acute 1; Aquatic Chronic 1; Acute Tox. 4; Acute Tox. 4; STOT SE 1; Eye Irrit. 2; STOT RE 1; Repr. 1B	GHS08; GHS09; Dgr	H317; H400; H410; H302; H312; H370; H319; H340; H372; H360

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

Ingredient	CAS number	Index No	ECHA Dossier
propane	74-98-6.*	601-003-00-5	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Gas 1	GHS02; GHS04; Dgr	H220
2	Flam. Gas 1; Press Gas; Skin Irrit. 2; Eye Irrit. 2; Acute Tox. 4; STOT SE 3; Muta. 1B; Carc. 1A; Flam. Liq. 2; Asp. Tox. 1; STOT SE 3; Repr. 2; STOT RE 2; Aquatic Chronic 2	GHS02; GHS04; Dgr; GHS03; GHS08; GHS09	H220; H280; H223; H229; H315; H319; H332; H335; H340; H350; H225; H304; H336; H361; H373; H411

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

Ingredient	CAS number	Index No	ECHA Dossier
butane	106-97-8.	601-004-00-0 601-004-01-8	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Gas 1	GHS02; GHS04; Dgr	H220
2	Flam. Gas 1; Press Gas; Muta. 1B; Carc. 1A; STOT SE 3	GHS02; GHS04; Dgr; GHS08	H220; H280; H340; H350; H304; H315; H335; H336; H361; H373; H411; H223; H229; H371

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

Ingredient	CAS number	Index No	ECHA Dossier
iso-butane	75-28-5.	601-004-00-0 601-004-01-8	Not Available

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

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

Continued...

LPS® FORCE 842® (Aerosol)

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Gas 1	GHS02; GHS04; Dgr	H220
2	Flam. Gas 1; Press Gas; Muta. 1B; Carc. 1A; STOT SE 3; STOT SE 1	GHS02; GHS04; Dgr; GHS08	H220; H280; H340; H350; H336; H223; H229; H370

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

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (2-methylpentane; Isopropanol*; n-pentane; n-hexane; 1,2,4-trimethyl benzene; naphtha petroleum, light aromatic solvent; tricresyl phosphate; propane; butane; iso-butane)
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	25/01/2024
Initial Date	28/04/2023

Full text Risk and Hazard codes

H204	Fire or projection hazard.
H220	Extremely flammable gas.
H223	Flammable aerosol.
H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
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.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H340	May cause genetic defects.
H350	May cause cancer.
H360	May damage fertility or the unborn child.
H361	Suspected of damaging fertility or the unborn child.
H361f	Suspected of damaging fertility.
H370	Causes damage to organs.
H371	May cause damage to organs.
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.

LPS® FORCE 842® (Aerosol)

Other information

Ingredients with multiple cas numbers

Name	CAS No
naphtha petroleum, light aromatic solvent	64742-95-6., 25550-14-5.

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.

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
Aerosols Category 1, H222+H229	On basis of test data
Skin Corrosion/Irritation Category 2, H315	Calculation method
Serious Eye Damage/Eye Irritation Category 2, H319	Calculation method
Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, H336	Calculation method
Hazardous to the Aquatic Environment Long-Term Hazard Category 2, H411	Calculation method
, EUH208	Calculation method

Powered by AuthorITe, from Chemwatch.