# •TRUSTED QUALITY SINCE 1921• SAFETY DATA SHEET

Low Tack Adhesive

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

**1.1 Product identifier** 

**Product type** 

**Product name Product description** 

**JST-OLEUM** 

- : Low Tack Adhesive : Paint. Aerosol.
- - : Aerosol.

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

Identified uses			
Industrial use Professional use Consumer use			
	Uses advised against		Reason
None identified.			-

### 1.3 Details of the supplier of the safety data sheet

**Rust-Oleum Corporation** Portobello Industrial Estate Birtley County Durham United Kingdom DH3 2RE Telephone no.: +44 (0) 191 4106611 Fax no.: +44 (0) 191 4920125

e-mail address of person : rpmeurohas@ro-m.com responsible for this SDS

### 1.4 Emergency telephone number

Supplier	
Telephone number	: +44 (0) 207 858 1228
Hours of operation	: 24/7

# SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Aerosol 1, H222, H229 Eye Irrit. 2, H319 STOT SE 3, H336

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

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# **SECTION 2: Hazards identification**

Hazard pictograms	
Signal word	: Danger
Hazard statements	: Extremely flammable aerosol. Causes serious eye irritation. May cause drowsiness or dizziness. Pressurized container: may burst if heated.
Precautionary statements	
General	<ul> <li>P102 - Keep out of reach of children.</li> <li>P103 - Read label before use.</li> <li>P101 - If medical advice is needed: Have product container or label at hand.</li> </ul>
Prevention	<ul> <li>P210 - Keep away from heat, sparks, open flames and hot surfaces No smoking.</li> <li>P211 - Do not spray on an open flame or other ignition source.</li> <li>P261 - Avoid breathing vapour or spray.</li> <li>P271 - Use only outdoors or in a well-ventilated area.</li> <li>P280 - Wear protective gloves and eye protection:</li> <li>No Code(s) - gloves neoprene safety glasses with side-shields.</li> <li>P251 - Do not pierce or burn, even after use.</li> </ul>
Response	<ul> <li>P305 - IF IN EYES:</li> <li>P351 - Rinse cautiously with water for several minutes.</li> <li>P338 - Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>P337 - If eye irritation persists:</li> <li>P313 - Get medical attention.</li> </ul>
Storage	: P405 - Store locked up. P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C.
Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazardous ingredients	: acetone
Supplemental label elements	: Repeated exposure may cause skin dryness or cracking.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.
Special packaging requirem	<u>ents</u>
Containers to be fitted with child-resistant fastenings	: Not applicable.
Tactile warning of danger	: Not applicable.
2.3 Other hazards	
Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII	: Not applicable.
Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	: Not applicable.

# **SECTION 2: Hazards identification**

Other hazards which do : None known.

not result in classification

# **SECTION 3: Composition/information on ingredients**

3.1 Substances

# : Mixture

			<b>Classification</b>	
Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Туре
acetone	REACH #: 01-2119471330-49 EC: 200-662-2 CAS: 67-64-1 Index: 606-001-00-8	≥25 - <50	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	[1] [2]
liquefied petroleum gas		≥25 - <50	Flam. Gas 1, H220	[2]
ethyl acetate	REACH #: 01-2119475103-46 EC: 205-500-4 CAS: 141-78-6 Index: 607-022-00-5	≥5 - <10	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	[1] [2]
butanone	REACH #: 01-2119457290-43 EC: 201-159-0 CAS: 78-93-3 Index: 606-002-00-3	≥3 - <5	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	[1] [2]
1-ethylpyrrolidin-2-one	EC: 220-250-6 CAS: 2687-91-4	≥1 - <3	Eye Irrit. 2, H319 Repr. 2, H361fd (Fertility and Unborn child) (oral) See Section 16 for the full text of the	[1]
			H statements declared above.	

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Туре

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

# SECTION 4: First aid measures

4.1 Description of first aid measures			
General	<ul> <li>In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.</li> </ul>		
Eye contact	<ul> <li>Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.</li> </ul>		
Inhalation	<ul> <li>Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.</li> </ul>		
Skin contact	<ul> <li>Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.</li> </ul>		
Ingestion	: If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.		

### **SECTION 4: First aid measures**

**Protection of first-aiders** 

: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

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

Notes to physician	<ul> <li>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</li> </ul>
Specific treatments	No aposifia tractment

Specific treatments : No specific treatment.

See toxicological information (Section 11)

SECTION 5: Firefighting measures		
5.1 Extinguishing media		
Suitable extinguishing media	:	Recommended: alcohol-resistant foam, CO <sub>2</sub> , powders, water spray.
Unsuitable extinguishing media	:	Do not use water jet.
5.2 Special hazards arising f	ron	n the substance or mixture
Hazards from the substance or mixture	:	Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
Hazardous thermal decomposition products	:	Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.
5.3 Advice for firefighters		
Special protective actions for fire-fighters	:	Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.
Special protective equipment for fire-fighters	:	Appropriate breathing apparatus may be required.
Additional information	:	Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Do not puncture, incinerate or store the container at temperatures above 49°C (120°F) or in direct sunlight. Container explosion may occur under fire conditions or when heated. Bursting aerosol containers may be propelled from a fire at high speed.

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# **SECTION 6: Accidental release measures**

6.1 Personal precautions, pro	ote	ctive equipment and emergency procedures
For non-emergency personnel	:	Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.
For emergency responders	:	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
6.2 Environmental precautions	:	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
6.3 Methods and material for	со	ntainment and cleaning up
Small spill	:	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	:	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.
6.4 Reference to other sections	:	See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

# **SECTION 7: Handling and storage**

The information in this section contains generic advice and guidance.

7.1 Precautions for safe handling	avoid vapo In addition, other source protected to Mixture ma from one co Operators s conducting Keep away Avoid conta mist arising sanding. Eating, drin handled, st Put on app Never use Always kee Comply wit Do not allow <b>Informatio</b> Vapours ar	ur concentrations higher the product should only l es of ignition have been to the appropriate standar y charge electrostatically ontainer to another. should wear antistatic foc type. from heat, sparks and fla act with skin and eyes. An from the application of t withing and smoking should ored and processed. ropriate personal protection pressure to empty. Containers pin containers made fro h the health and safety a w to enter drains or water <b>n on fire and explosion</b>	always use earthing lead twear and clothing and flo ame. No sparking tools sh void the inhalation of dust his mixture. Avoid inhalati be prohibited in areas w ve equipment (see Section iner is not a pressure ves m the same material as th t work laws. courses.	oosure limits. ich all naked lights and iment should be ds when transferring oors should be of the hould be used. , particulates, spray or on of dust from here this material is on 8). ssel. ne original one.
Date of issue/Date of revision	When oper : 9/01/2017	ators, whether spraying o	or not, have to work inside	e the spray booth,

# **SECTION 7: Handling and storage**

ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations.

Notes on joint storage

Keep away from: oxidising agents, strong alkalis, strong acids.

Additional information on storage conditions

Observe label precautions. Do not store above the following temperature: 35°C (95°F). Store in a dry, cool and wellventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

### Seveso Directive - Reporting thresholds (in tonnes)

### Named substances

	Notification and MAPP threshold	Safety report threshold
LPG	50	200

### Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P3a: Flammable aerosols containing flammable gases or flammable liquids	150	500

### 7.3 Specific end use(s)

: Not available.

Recommendations Industrial sector specific

- : Not available.
- solutions

# SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

### 8.1 Control parameters

### **Occupational exposure limits**

Product/ingredient name	Exposure limit values				
acetone	EH40/2005 WELs (United Kingdom (UK), 12/2011).				
	STEL: 3620 mg/m <sup>3</sup> 15 minutes.				
	STEL: 1500 ppm 15 minutes.				
	TWA: 500 ppm 8 hours.				
	TWA: 1210 mg/m <sup>3</sup> 8 hours.				
liquefied petroleum gas	EH40/2005 WELs (United Kingdom (UK), 12/2011).				
	STEL: 2180 mg/m <sup>3</sup> 15 minutes.				
	STEL: 1250 ppm 15 minutes.				
	TWA: 1750 mg/m <sup>3</sup> 8 hours.				
	TWA: 1000 ppm 8 hours. EH40/2005 WELs (United Kingdom (UK), 12/2011).				
ethyl acetate					
	STEL: 400 ppm 15 minutes.				
	TWA: 200 ppm 8 hours.				
butanone	EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed				
	through skin.				
	STEL: 899 mg/m <sup>3</sup> 15 minutes.				
	STEL: 300 ppm 15 minutes.				
Date of issue/Date of revision : 9/07	I/2017 Date of previous issue : No previous validation Version : 3 6/16				

# **SECTION 8: Exposure controls/personal protection**

		TWA: 600 mg/m <sup>3</sup> 8 hours. TWA: 200 ppm 8 hours.
Recommended monitoring procedures	atmosphere or to of the ventilation protective equip the following: E the assessment limit values and atmospheres - C of exposure to c (Workplace atm for the measure	ontains ingredients with exposure limits, personal, workplace biological monitoring may be required to determine the effectiveness or other control measures and/or the necessity to use respiratory ment. Reference should be made to monitoring standards, such as uropean Standard EN 689 (Workplace atmospheres - Guidance for of exposure by inhalation to chemical agents for comparison with measurement strategy) European Standard EN 14042 (Workplace Guide for the application and use of procedures for the assessment hemical and biological agents) European Standard EN 482 ospheres - General requirements for the performance of procedures ment of chemical agents) Reference to national guidance methods for the determination of hazardous substances will also be

### **DNELs/DMELs**

Product/ingredient name	Туре	Exposure	Value	Population	Effects
ethyl acetate	DNEL	Short term	1468 mg/	Workers	Local
		Inhalation	m³		
	DNEL	Short term	1468 mg/	Workers	Systemic
		Inhalation	m³		
	DNEL	Long term	734 mg/m³	Workers	Local
		Inhalation			
	DNEL	Long term	34 mg/m³	Workers	Systemic
		Inhalation			
	DNEL	Long term Dermal	63 mg/kg	Workers	Systemic
			bw/day	<u> </u>	
	DNEL	Short term	734 mg/m³	Consumers	Local
		Inhalation		<u> </u>	
	DNEL	Short term	734 mg/m <sup>3</sup>	Consumers	Systemic
		Inhalation	007	0	1 1
	DNEL	Long term	367 mg/m <sup>3</sup>	Consumers	Local
		Inhalation	0.07 / 2	<u> </u>	
	DNEL	Long term	367 mg/m <sup>3</sup>	Consumers	Systemic
		Inhalation	07 //	<u> </u>	
	DNEL	Long term Dermal	37 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Oral	4.5 mg/kg	Consumers	Systemic
			bw/day		

### **PNECs**

Product/ingredient name	Compartment Detail	Value	Method Detail
ethyl acetate	Fresh water	0.26 mg/l	-
	Marine	0.026 mg/l	-
	Fresh water sediment	0.34 mg/kg	-
	Marine water sediment	0.034 mg/kg	-
	Soil	0.22 mg/kg	-
	Sewage Treatment Plant	650 mg/l	-

### 8.2 Exposure controls

Appropriate engineering controls

: Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.

### Individual protection measures

Date of issue/Date of revision

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ECTION 8: Exposi	re controls/personal protection
Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothin Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles. Recommended: safety glasses with side-shields (EN 166)
Skin protection	
Hand protection	
combination of chemica The breakthrough time in The instructions and info replacement must be fo	nust be greater than the end use time of the product. ormation provided by the glove manufacturer on use, storage, maintenance and
Always ensure that glov The performance or effermation maintenance.	es are free from defects and that they are stored and used correctly. ctiveness of the glove may be reduced by physical/chemical damage and poor to protect the exposed areas of the skin but should not be applied once exposure has
Gloves	: For prolonged or repeated handling, use the following type of gloves:
	Recommended: > 8 hours (breakthrough time): neoprene (0.65mm).
	The recommendation for the type or types of glove to use when handling this product is based on information from the following source: EN 374-3 : 2003
	The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods. Recommended: disposable overall (EN 1149-1).
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection mube based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: organic vapour (Type A) and particulate filter. (EN 140)
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensur they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

# **SECTION 9: Physical and chemical properties**

9.1 Information on basic physica	l a	nd chemical properties
<u>Appearance</u>		
Physical state	1	Liquid. [Aerosol.]
Colour	:	Not available.
Odour	:	Solvent-like [Slight]
Odour threshold	:	Not available.
рН	:	Not available.
Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	Not available.
Flash point	:	Closed cup: -70°C
Evaporation rate	:	Not available.
Flammability (solid, gas)	:	Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat. Slightly flammable in the presence of the following materials or conditions: shocks and mechanical impacts. In use, may form flammable/explosive vapour-air mixture. Vapour may travel a considerable distance to source of ignition and flash back.
Upper/lower flammability or explosive limits	:	Not available.
Vapour pressure	1	400 kPa [room temperature]
Vapour density	:	Not available.
Relative density	:	Not available.
Solubility(ies)	:	Not available.
Partition coefficient: n-octanol/ water	:	Not available.
Auto-ignition temperature	1	Not available.
Decomposition temperature	1	Not available.
Viscosity	1	Not available.
Explosive properties	:	Highly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts. Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Do not puncture, incinerate or store the container at temperatures above 49°C (120°F) or in direct sunlight. Container explosion may occur under fire conditions or when heated. Bursting aerosol containers may be propelled from a fire at high speed.
Oxidising properties	;	Not available.
9.2 Other information		
Aerosol product		
Type of aerosol	1	Spray
Heat of combustion	:	14.8 kJ/g
No additional information.		

No additional information.

SECTION 10:	Stability and	reactivity
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10.1 Reactivity	: No specific	: No specific test data related to reactivity available for this product or its ingredients				
10.2 Chemical stability	: Stable unde	er recommended storage	and handling conditions	(see Section 7).		
10.3 Possibility of hazardous reactions	: Under norm	nal conditions of storage	and use, hazardous react	ions will not occu	r.	
Date of issue/Date of revision	: 9/01/2017	Date of previous issue	: No previous validation	Version : 3	9/16	

# **SECTION 10: Stability and reactivity**

10.4 Conditions to avoid	:	When exposed to high temperatures may produce hazardous decomposition products.
10.5 Incompatible materials	:	Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced. If involved in a fire, toxic gases including CO, CO2 and smoke can be generated.

# **SECTION 11: Toxicological information**

### 11.1 Information on toxicological effects

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Product/ingredient name	Result	Species	Dose	Exposure
acetone	LD50 Oral	Rat	5800 mg/kg	-
ethyl acetate	LD50 Oral	Rat	5620 mg/kg	-
butanone	LC50 Inhalation Vapour	Mouse	23500 mg/m <sup>3</sup>	8 hours
	LC50 Inhalation Vapour	Rat	20 mg/l	4 hours
	LD50 Dermal	Rabbit	6480 mg/kg	-
	LD50 Oral	Rat	2737 mg/kg	-
1-ethylpyrrolidin-2-one	LD50 Oral	Rat	1350 mg/kg	-

### Acute toxicity

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
acetone	Eyes - Mild irritant	Human	-	186300 parts	-
				per million	
	Eyes - Mild irritant	Rabbit	-	10 microliters	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20	-
				milligrams	
	Eyes - Severe irritant	Rabbit	-	20 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500	-
				milligrams	
	Skin - Mild irritant	Rabbit	-	395	-
				milligrams	
butanone	Skin - Mild irritant	Rabbit	-	24 hours 14	-
				milligrams	
	Skin - Moderate irritant	Rabbit	-	24 hours 500	-
				milligrams	
1-ethylpyrrolidin-2-one	Eyes - Moderate irritant	Rabbit	-	100	-
	,				
Date of issue/Date of revision	: 9/01/2017 Date of previous is	sue : No	previous va	lidation Versi	on :3 10/16

# **SECTION 11: Toxicological information**

	milligrams
<b>Conclusion/Summary</b>	
Skin	: Based on available data, the classification criteria are not met.
Eyes	: Causes serious eye irritation.
Respiratory	: May cause drowsiness or dizziness.
Sensitisation	
<b>Conclusion/Summary</b>	
Skin	: Based on available data, the classification criteria are not met.
Respiratory	: Based on available data, the classification criteria are not met.
Mutagenicity	
<b>Conclusion/Summary</b>	: Based on available data, the classification criteria are not met.
Carcinogenicity	
<b>Conclusion/Summary</b>	: Based on available data, the classification criteria are not met.
Reproductive toxicity	
<b>Conclusion/Summary</b>	: Based on available data, the classification criteria are not met.
Teratogenicity	
<b>Conclusion/Summary</b>	: Based on available data, the classification criteria are not met.
Specific target organ toxi	<u>city (single exposure)</u>

Product/ingredient name	Category	Route of exposure	Target organs
ethyl acetate	Category 3	Not applicable.	Narcotic effects Narcotic effects Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

### **Aspiration hazard**

Not available.

### Other information

: Not available.

# **SECTION 12: Ecological information**

### 12.1 Toxicity

There are no data available on the mixture itself. Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is not classified as hazardous to the environment.

Result	Species	Exposure
Acute LC50 8.64 to 8098 mg/l Fresh	Crustaceans - Ceriodaphnia	48 hours
water	dubia - Neonate	
Acute LC50 7.88 to 7280 mg/l Fresh	Fish - Pimephales promelas	96 hours
water		
Acute EC50 2500000 µg/l Fresh water	Algae - Selenastrum sp.	96 hours
Acute LC50 1600000 µg/l Fresh water	Crustaceans - Asellus aquaticus	48 hours
Acute LC50 560000 µg/l Fresh water	Daphnia spec Daphnia magna	48 hours
Chronic NOEC mg/l Fresh water	Daphnia spec Daphnia magna	21 days
Acute EC50 >500000 µg/l Marine water	Algae - Skeletonema costatum	96 hours
Acute LC50 520000 µg/l Fresh water	Daphnia spec Daphnia magna	48 hours
Acute LC50 5640 mg/l	Fish	24 hours
Acute LC50 3320 to 3220000 µg/l	Fish - Pimephales promelas	96 hours
Fresh water		
	Acute LC50 8.64 to 8098 mg/l Fresh water Acute LC50 7.88 to 7280 mg/l Fresh water Acute EC50 2500000 µg/l Fresh water Acute LC50 1600000 µg/l Fresh water Acute LC50 560000 µg/l Fresh water Chronic NOEC mg/l Fresh water Acute EC50 >500000 µg/l Marine water Acute LC50 520000 µg/l Fresh water Acute LC50 520000 µg/l Fresh water Acute LC50 5640 mg/l Acute LC50 3320 to 3220000 µg/l	Acute LC50 8.64 to 8098 mg/l Fresh waterCrustaceans - Ceriodaphnia dubia - NeonateAcute LC50 7.88 to 7280 mg/l Fresh waterFish - Pimephales promelasAcute EC50 2500000 µg/l Fresh water Acute LC50 1600000 µg/l Fresh water Chronic NOEC mg/l Fresh water Acute EC50 >500000 µg/l Marine water Acute LC50 520000 µg/l Fresh water Acute EC50 >500000 µg/l Fresh water Acute LC50 520000 µg/l Fresh water Acute EC50 >500000 µg/l Fresh water Acute LC50 520000 µg/l Fresh water 

# SECTION 12: Ecological information Acute LC50 400 ppm Marine water Fish - Cyprinodon variegatus -Juvenile (Fledgling, Hatchling, Weanling) 96 hours Conclusion/Summary : Based on available data, the classification criteria are not met.

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result		Dose	Inoculum
ethyl acetate	OECD 301D	70 % - Readily - 28	days	-	-
Conclusion/Summary		has not been tested fo criteria are not met.	r biodegrad	ation. Based	on available data, the
Product/ingredient name	Aquatic half-life	)	Photolysi	s	Biodegradability
acetone ethyl acetate butanone	- - -		- - -		Readily Readily Readily

### **12.3 Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
acetone	-0.27 to 0.58	-	low
ethyl acetate	0,7	-	low
butanone	0,3	-	low
1-ethylpyrrolidin-2-one	-0,04	-	low

### 12.4 Mobility in soil

Soil/water partition coefficient (Koc)	: Not available.	
Mobility	: Volatile. This product is likely to volatilise rapidly into the air because of its high vapour pressure.	

### 12.5 Results of PBT and vPvB assessment

PBT	: Not applicable.
	P: Not available. B: Not available. T: Not available.
vPvB	: Not applicable.
	vP: Not available. vB: Not available.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

# **SECTION 13: Disposal considerations**

The information in this section contains generic advice and guidance.

### 13.1 Waste treatment methods

Product	
Methods of disposal	: The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non- recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
Hazardous waste	: Yes.

SECTION 13: Disposal considerations		
Disposal considerations	<ul> <li>Do not allow to enter drains or watercourses.</li> <li>Dispose of according to all federal, state and local applicable regulations.</li> <li>If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.</li> <li>For further information, contact your local waste authority.</li> </ul>	
European waste catalog	<u>ue (EWC)</u>	
The European Waste Cata	alogue classification of this product, when disposed of as waste, is:	
Waste code	Waste designation	
20 01 27*	paint, inks, adhesives and resins containing dangerous substances	
Packaging		
Methods of disposal	: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.	
<b>Disposal considerations</b>	: Using information provided in this safety data sheet, advice should be obtained from	

 the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.
 Special precautions
 This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

# **SECTION 14: Transport information**

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	UN1950	UN1950	UN1950	UN1950
14.2 UN proper shipping name	AEROSOLS Flammable [Limited quantity]	AEROSOLS, Flammable [Limited quantity]	AEROSOLS, Flammable [Limited quantity]	AEROSOLS, Flammable [Limited quantity]
14.3 Transport hazard class(es)	2	2	2.1	2.1
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.
Additional information	Limited quantity: LQ2 Remarks: (≤ 1L: ) Limited Quantity - ADR/IMDG 3.4 ADR Tunnel code: (D)		Emergency schedules (EmS): F-D + S-U Remarks: Limited Quantity - ADR/IMDG 3.4	Passenger and Cargo AircraftQuantity limitation: 75 kgPackaging instructions: 203Cargo Aircraft Only Quantity limitation: 150 kg Packaging instructions: 203Limited Quantities - Passenger Aircraft Quantity limitation: 30

SECTION 14: Transport information		
		kg Packaging instructions: Y 203

**<sup>14.6</sup> Special precautions for user**: **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

# **SECTION 15: Regulatory information**

Product/ingredient name	Carcinogenic effects	Mutagenic effects	Developmental effects	Fertility effects
Integrated pollution prevention and control list (IPPC) - Air	: Listed			
Europe inventory	: All components a	are listed or exempted.		
VOC for Ready-for-Use Mixture	: Not applicable.			
Other EU regulations				
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.			
None of the components a				
Substances of very high	<u>concern</u>			
None of the components a	re listed.			
Annex XIV				
Annex XIV - List of substa	nces subject to auth	norisation		
EU Regulation (EC) No. 190	7/2006 (REACH)			
5.1 Safety, health and envir	onnentai regulation	is/legislation specific	for the substance c	

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**Aerosol dispensers** 

1-ethylpyrrolidin-2-one



Extremely flammable

### Seveso Directive

This product is controlled under the Seveso Directive.

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### Named substances

Name		
LPG		
Danger criteria		

Repr. 2, H361d

(Unborn child) (oral)

Repr. 2, H361f

(Fertility) (oral)

### SECTION 15: Regulatory information Category P3a: Flammable aerosols containing flammable gases or flammable liquids **National regulations** Industrial use : The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work. References : EH40/2005 Workplace exposure limits Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2015/830 International regulations **Chemical Weapon Convention List Schedules I, II & III Chemicals** Not listed. Montreal Protocol (Annexes A, B, C, E) Not listed. Stockholm Convention on Persistent Organic Pollutants Not listed. Rotterdam Convention on Prior Inform Consent (PIC) Not listed. **UNECE Aarhus Protocol on POPs and Heavy Metals** Not listed. **CN code** : 3208 90 91 **International lists National inventory Australia** : Not determined. Canada : Not determined. China : Not determined. : Not determined. Japan : Not determined. Malaysia **New Zealand** : Not determined. : At least one component is not listed. **Philippines Republic of Korea** : Not determined. Taiwan : Not determined. : Not determined. **United States 15.2 Chemical Safety** : No Chemical Safety Assessment has been carried out. Assessment SECTION 16: Other information

\_ Indicates information that has changed from previously issued version.

Abbreviations and	: ATE = Acute Toxicity Estimate
acronyms	CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
	DMEL = Derived Minimal Effect Level
	DNEL = Derived No Effect Level
	EUH statement = CLP-specific Hazard statement
	PBT = Persistent, Bioaccumulative and Toxic
	PNEC = Predicted No Effect Concentration
	RRN = REACH Registration Number
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# **SECTION 16: Other information**

vPvB = Very Persistent and Very Bioaccumulative

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification	
Aerosol 1, H222, H229	Expert judgment	
Eye Irrit. 2, H319	Expert judgment	
STOT SE 3, H336	Expert judgment	

### Full text of H-phrases referred to in sections 2 and 3

Full text of abbreviated H statements	:	H220 H222, H229 H225 H319 H336 H361fd (Fertility and Unborn child) (oral)	Extremely flammable gas. Extremely flammable aerosol. Pressurized container: may burst if heated. Highly flammable liquid and vapour. Causes serious eye irritation. May cause drowsiness or dizziness. Suspected of damaging fertility if swallowed. Suspected of damaging the unborn child if swallowed.
Full text of classifications [CLP/GHS]	:	Aerosol 1, H222, H229 EUH066 Eye Irrit. 2, H319 Flam. Gas 1, H220 Flam. Liq. 2, H225 Repr. 2, H361fd (Fertility and Unborn child) (oral) STOT SE 3, H336	AEROSOLS - Category 1 Repeated exposure may cause skin dryness or cracking. SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 FLAMMABLE GASES - Category 1 FLAMMABLE LIQUIDS - Category 2 TOXIC TO REPRODUCTION (Fertility and Unborn child) (oral) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
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Notico to reador			

### Notice to reader

The information in this Safety Data Sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation.