



<p>MSDS MATERIAL SAFETY DATA SHEET</p>	0.1 Product	<i>Vulnos Blue Spray</i>
	0.2 Status	Active
	0.3 Version	4
	0.4 Version date	23-03-2023
1. Identification of the product and of the company		
1.1	<u>Product identification</u>	
Product name	<i>Vulnos Blue Spray</i>	
Trade name	<i>Vulnos Blue Spray / Vulnos Blauw Spray</i>	
Article code	VULN0200	
Chemical description	Mixture	
UFI	-	
REACH registration number	-	
1.2	<u>Relevant identified uses of the substance or mixture and uses advised against</u>	
Identified use(s)	Skin care product.	
Use(s) advised against	Not identified.	
1.3	<u>Details of the supplier of the safety data sheet</u>	
Company identification	Name	Holland Animal Care B.V.
Contact	Address	De Leemkoele 2
	Zip code	7468 DM
	Town	Enter
	Country	The Netherlands
	Telephone	+31-(0)548-545520
	E-mail	info@hollandanimalcare.nl
	Website	www.hollandanimalcare.nl
1.4	<u>Emergency telephone number</u>	
Emergency telephone number	The Netherlands : National Poisoning Information Center - Bilthoven TEL: +31(0)30/274.88.88 Belgium : Antipoison Center - Brussels TEL: +32(0)70/245.245 (Only for the purpose of informing medical personnel in cases of acute intoxications)	

2. Hazards identification	
2.1	Classification of the substance or mixture
<p>Classification according to Regulation (EC) no. 1272/2008: Aerosol 1; Aerosols – category 1; H222, H229 Eye Irrit. 2; Serious eye damage / irritation – category 2; H319 STOT SE 3; Specific target organ toxicity, single exposure – category 3; H336</p> <p>The full text of the (EU)H-statements can be found in section 16.</p>	
2.2	Label elements
<p>Labelling according to Regulation (EC) no. 1272/2008:</p>	
Hazardous component(s)	propan-2-ol; isopropyl alcohol; isopropanol.
Hazard pictogram(s)	 
Signal word	Danger
Hazard statements	H222 Extremely flammable aerosol. H229 Pressurised container: may burst if heated. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.
Precautionary measures	<ul style="list-style-type: none"> - General <ul style="list-style-type: none"> P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. - Prevention <ul style="list-style-type: none"> 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. - Storage <ul style="list-style-type: none"> P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
Special labelling of specific mixture	Active substances: 98g/100g 2-propanol, 0.1g/100g alkyl (C12-C14) dimethylbenzylammonium chloride (ADBAC (C12-C14)). Read enclosed instruction sheet before use.
2.3	Other hazards
Other hazards	Use only in accordance with the intended purpose. Possible formation of explosive mixtures without adequate ventilation. Use only empty containers for recycling purposes.
Results of PBT and vPvB assessment	According to the results of its assessment, this substance is not a PBT or a vPvB.
Endocrine disrupting properties	Contains no components with endocrine disrupting properties in a concentration of $\geq 0.1\%$.

3. Composition/information on ingredients

3.1	<u>Substances</u>	Not relevant (mixture).					
3.2	<u>Mixtures</u>	Hazardous ingredients.					
Name component(s)	weight %	CAS no.	EINECS no.	Index no.	Reach no.	Classification	
Propan-2-ol; isopropyl alcohol; isopropanol	55 ≤ 60	67-63-0	200-661-7	603-117-00-0	01-2119457558-25	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	
Butane	25 ≤ 30	106-97-8	203-448-7	601-004-00-0	01-2119474691-32	Flam. Gas 1 L; H220/H280	
Propane	12.5 ≤ 15	74-98-6	200-827-9	601-003-00-5	01-2119486944-21	Flam. Gas 1 L; H220/H280	
2,2',2''-Nitrilotriethanol	0.1 ≤ 0.5	102-71-6	203-049-8		01-2119486482-31		
Basic Blue 7 (CI 42595)	< 0.1	2390-60-5	219-232-0			Acute Tox. 3; H301 Eye Dam. 1; H318 Aquatic Chronic 1; H410	
Alkyl (C12-C14) dimethyl benzyl ammonium chloride (ADBAC (C12-C14))	< 0.1	85409-22-9	287-089-1		01-2120754638-42	Acute Tox. 4; H302 Skin Corr. 1A; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	

The full text of the (EU)H-statements can be found in section 16.

SCL, M-factor, ATE

Name componen(s)	CAS no.	SCL, M-factor, ATE
Propan-2-ol; isopropyl alcohol; isopropanol	67-63-0	Dermal: LD50 = 13900 mg/kg Oral: LD50 = 5840 mg.kg
2,2',2''-Nitrilotriethanol	102-71-6	Dermal: LD50 = >2000 mg/kg Oral: LD50 = 6400 mg/kg
Basic Blue 7 (CI 42595)	2390-60-5	Oral: ATE = 100 mg/kg
Alkyl (C12-C14) dimethyl benzyl ammonium chloride (ADBAC (C12-C14))	85409-22-9	Dermal: LD50 = 3412.5 mg/kg Oral: LD50 = 795 mg/kg

4. First aid measures

4.1	<u>Description of first aid measures</u>	
General		In all cases of doubt or if symptoms are present, seek medical advice. If medical advice is needed, have product container or label at hand.
First aid measures in case of inhalation		Provide fresh air.
First aid measures in case of skin contact		After contact with skin, wash immediately with soap and water. Remove contaminated clothing and wash before reuse. If skin irritation occurs, seek medical attention.
First aid measures in case of eye contact		In case of eye contact, rinse the eyes with water for a sufficiently long time with the eyelids open, then consult an ophthalmologist immediately.

First aid measures in case of ingestion	In case of vomiting, pay attention to the danger of suffocation. Rinse mouth immediately and drink 1 glass of water. Never administer anything by mouth to an unconscious person or if convulsions occur.
4.2	<u>Most important symptoms and effects, both acute and delayed</u>
Headaches, dizziness, lightheadedness. Symptoms may also appear after many hours, therefore medical monitoring at least until 48 hours after the accident.	
4.3	<u>Indication of any immediate medical attention and special treatment needed</u>
Symptomatic treatment.	
5. Firefighting measures	
5.1	<u>Extinguishing media</u>
Suitable extinguishing media	Water mist, carbon dioxide (CO ₂), foam, extinguishing powder.
Unsuitable extinguishing media	Full water jet.
5.2	<u>Special hazards arising from the substance or mixture</u>
Special exposure hazards	Extremely flammable aerosol. Pressurised container: May burst if heated. Vapours can form explosive mixtures with air.
5.3	<u>Advice for firefighters</u>
Special protective equipment	In case of fire: use a self-contained breathing apparatus.
Special procedures	Use water mist to protect persons and cool containers in the danger area. Precipitate gases / vapours / mist with water mist. Collect contaminated fire extinguishing water separately. Do not allow product to enter drains or watercourses.
6. Accidental release measures	
6.1	<u>Personal precautions, protective equipment and emergency procedures</u>
Personal precautions	<i>General advice:</i> Remove all ignition sources. Ensure adequate ventilation. Do not inhale gas/fumes/vapour/aerosol. Avoid contact with skin, eyes and clothing. Use personal protective equipment. <i>For non-emergency personnel:</i> Move persons to safety. Ventilate the affected area. Do not inhale gas/vapour/aerosol. <i>For emergency responders:</i> Use respiratory protection when exposed to vapours, dusts and aerosols.
6.2	<u>Environmental precautions</u>
Environmental precautions	Do not allow product to enter the environment uncontrolled. Danger of explosion.
6.3	<u>Methods and material for containment and cleaning up</u>
Methods for cleaning up	Absorb with liquid-binding material (sand, diatomaceous earth, acid binder, universal binder). Treat absorbed material in accordance with the section Disposal (section 13).

6.4 Reference to other sections						
Safe handling		See section 7.				
Personal protection		See section 8.				
Removal of the waste product		See section 13.				
7. Handling and storage						
7.1 Precautions for safe handling						
Handling		<p><i>Instructions for safe handling:</i> Do not pierce or burn, even after use. In case of open handling, use equipment with local exhaust ventilation. Do not inhale gas/fume/vapour/aerosol.</p> <p><i>Information on general hygiene measures at the workplace:</i> Immediately remove contaminated, soaked clothing. Prepare and observe a skin protection plan! Wash hands and face thoroughly before breaks and at the end of work, shower if necessary. Do not eat, drink, smoke or sniff at the workplace.</p> <p><i>Further information on handling:</i> Heating leads to pressure increase and danger of bursting.</p>				
7.2 Conditions for safe storage, including any incompatibilities						
Storage		Do not store together with: Oxidising agents, pyrophoric or self-heating hazardous substances. Keep away from food, drinks and animal feed. Storage class according to TRGS 510: 2B (aerosol dispensers and lighters).				
Requirements for storage rooms and containers		Store locked up. Store in a place accessible only to authorised persons. Provide adequate ventilation and point source exhaust ventilation at critical points. Store container in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Do not smoke.				
Protection against fire and explosion		Do not spray on flames or glowing objects. Protect from sunlight. Do not expose to temperatures above 50 °C/122 °F. Keep away from sources of ignition - Do not smoke. Take measures against electrostatic charges. Vapours may form explosive mixtures with air.				
Packaging material		Not available.				
Unsuitable packaging material		Not available.				
7.3 Specific end use(s)						
For identified use(s), see section 1.2.						
8. Exposure controls/personal protection						
8.1 Control parameters						
Occupational exposure limits						
Occupational exposure limit values (Workplace Exposure Limits)						
Cas no	Name of agent	TWA-8h (ppm)	TWA-8h (mg/m ³)	TWA- 15 min (ppm)	TWA-15 min (mg/m ³)	Source
102-71-6	2,2',2''-Nitrilo-triethanol		5			REACH
102-71-6	2,2',2''-Nitrilo-triethanol		1 E			TRGS 900 (DE)
106-97-8	Butane	1000	2400	4000	9600	TRGS 900 (DE)

67-63-0	Propan-2-ol		500			REACH
67-63-0	Propan-2-ol	200	500			TRGS 900 (DE)
74-98-6	Propane	1000	1800			TRGS 900 (DE)

TWA-8h= (time-weighted average) long-term exposure limit; TWA-15 min = short-term exposure limit; E = inhalable fraction

Biological limit values

Cas no	Name of agent	Parameter	Value	Source
67-63-0	Propan-2-ol	Acetone	25 mg/l	TRGS 903 (DE)

DNELs

Relevant DNELs of components of the mixture						
Name of agent	Cas no	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Propan-2-ol	67-63-0	DNEL	1000 mg/m ³	Human, inhalatory	Worker	Acute – systemic effects
		DNEL	178 mg/m ³	Human, inhalatory	Consumer	Acute – systemic effects
		DNEL	51 mg/kg BW/d	Human, oral	Consumer	Acute – systemic effects
		DNEL	888 mg/kg /d	Human, dermal	Worker	Chronic - systemic effects
		DNEL	500 mg/m ³	Human, inhalatory	Worker	Chronic - systemic effects
		DNEL	319 mg/kg BW/d	Human, dermal	Consumer	Chronic - systemic effects
		DNEL	89 mg/m ³	Human, inhalatory	Consumer	Chronic - systemic effects
		DNEL	26 mg/kg BW/d	Human, oral	Consumer	Chronic - systemic effects
2,2',2"-Nitrilotriet hanol	102-71-6	DNEL	1 mg/m ³	Human, inhalatory	Worker	Chronic – local effects
		DNEL	0.4 mg/m ³	Human, inhalatory	Consumer	Chronic – local effects
		DNEL	7.5 mg/kg BW/d	Human, dermal	Worker	Chronic - systemic effects
		DNEL	5 mg/m ³	Human, inhalatory	Worker	Chronic - systemic effects
		DNEL	2.66 mg/kg KG/d	Human, dermal	Consumer	Chronic - systemic effects
		DNEL	1.25 mg/m ³	Human, inhalatory	Consumer	Chronic - systemic effects
		DNEL	3.3 mg/kg BW/d	Human, oral	Consumer	Chronic - systemic effects
		DNEL	1.64 mg/m ³	Human, inhalatory	Consumer	Chronic - systemic effects
Alkyl (C12-C14) dimethyl benzyl ammonium chloride (ADBAC (C12-C14))	85409-22-9	DNEL	3.4 mg/kg BW/d	Human, dermal	Consumer	Chronic - systemic effects
		DNEL	3.4 mg/kg BW/d	Human, oral	Consumer	Chronic - systemic effects
		DNEL	3.96 mg/m ³	Human, inhalatory	Worker	Chronic - systemic effects
		DNEL	5.7 mg/kg BW/d	Human, dermal	Worker	Chronic - systemic effects
		DNEL				

PNECs						
Relevant PNECs of components of the mixture						
Name of substance	Cas no	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Propan-2-ol	67-63-0	PNEC	140.9 mg/l		Fresh water	
		PNEC	140.9 mg/l		Fresh water	Intermittent release
		PNEC	140.9 mg/l		Marine water	
		PNEC	552 mg/kg		Freshwater sediments	
		PNEC	552 mg/kg		Marine sediments	
		PNEC	160 mg/kg		Secondary poisoning	
		PNEC	2251 mg/l	Micro organisms	Sewage treatment	
2,2',2''-Nitrilotriethanol	102-71-6	PNEC	28 mg/kg		Soil	
		PNEC	0.32 mg/l		Fresh water	
		PNEC	5.12 mg/l		Fresh water	Intermittent release
		PNEC	0.032 mg/l		Marine water	
		PNEC	1.7 mg/kg		Freshwater sediments	
		PNEC	0.17 mg/kg		Marine sediments	
		PNEC	10 mg/l	Micro organisms	Sewage treatment	
Alkyl (C12-C14) dimethyl benzyl ammonium chloride (ADBAC (C12-C14))	85409-22-9	PNEC	0.151 mg/kg		Soil	
		PNEC	0.001 mg/l		Fresh water	
		PNEC	0 mg/l		Fresh water	Intermittent release
		PNEC	0.001 mg/l		Marine water	
		PNEC	12.27 mg/kg		Freshwater sediments	
		PNEC	13.09 mg/kg		Marine sediments	
		PNEC	0.4 mg/l	Micro organisms	Sewage treatment	
		PNEC	7 mg/kg		Soil	

8.2 Exposure controls	
Engineering measures	Do not inhale gas/smoke/vapor/aerosol. Use only outdoors or in well-ventilated areas.
Personal protection equipment	
Eye / face protection	Wear eye/face protection. Suitable eye protection: close-fitting safety goggles (DIN EN 166).
Skin protection	Not available.

Hand protection	When handling chemicals, only wear chemical protective gloves with CE marking including a four-digit test number. Protective gloves should be selected specifically for the workplace depending on the concentration and quantity of hazardous substances. Suitable material: butyl rubber (EN ISO 374). Thickness of the glove material: 0.5 mm. Penetration time (maximum wear time): >= 480 min. It is recommended to verify the chemical resistance of the protective gloves mentioned above with the glove manufacturer in case of special use.
Body protection	Wear antistatic shoes and work clothes.
Respiratory protection	Wear respiratory protection if ventilation is inadequate. Suitable respiratory equipment: combination filter device A-P2.
Thermal hazards	Not available.
Environmental exposure controls	Not available.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid.
Colour	Blue.
Odour	Alcohol.
Melting / freezing point	Not available.
Boiling point / range (1013 hPa)	< -20 °C.
Flammability	Not available.
Explosion limits	Lower explosion limit: 1.5 vol.% Upper explosion limit: 13 vol.%
Flash point	< -20 °C.
Auto-ignition temperature	> 350 °C.
Decomposition temperature	Not available.
pH	Not available.
Kinematic viscosity	Not available.
Solubility	Partially miscible in water at 20 °C.
Partition coefficient n-octanol/water	Not available.
Vapour pressure	Not available.
Density or relative density	0.675 g/cm ³ calculated at 20 °C.
Relative vapour density	Not available.
Particle characteristics	Not available.

9.2	<u>Other information</u>	
Information on physical hazard classes	<i>Explosion hazards:</i> Heating may cause explosion. <i>Oxidising properties:</i> The product is not: oxidising.	
Other information	No further relevant information available.	
10. Stability and reactivity		
10.1	<u>Reactivity</u>	
Reactivity	Extremely flammable aerosol. Pressurised container: May burst if heated. No further information available.	
10.2	<u>Chemical stability</u>	
Stability	The product is stable when stored at normal ambient temperatures.	
10.3	<u>Possibility of hazardous reactions</u>	
Hazardous reactions	Heating leads to pressure increase and bursting hazard.	
10.4	<u>Conditions to avoid</u>	
Conditions to avoid	Keep away from heat sources (e.g. hot surfaces), sparks and open flames. Vapours may form explosive mixtures with air.	
10.5	<u>Incompatible materials</u>	
Materials to avoid	No further relevant information available.	
10.6	<u>Hazardous decomposition products</u>	
Hazardous decomposition products	In the event of fire, the following may be formed: Carbon dioxide (CO ₂), carbon monoxide, soot, pyrolysis products, toxic.	

11. Toxicological information						
11.1	Information on hazard classes as defined in Regulation (EC) No. 1272/2008					
Acute toxicity			Based on the available data, the classification criteria are not met.			
ATEmix calculated ATE (oral) 100000,0 mg/kg						
Cas no	Name of substance	Route of exposure	Dosis	Species	Source	Methode
67-63-0	Propan-2-ol	Oral	LD50 = 5,840 mg/kg	Rat		OECD 401
		Dermal	LD50 = 13,900 mg/kg	Rabbit		OECD 402
102-71-6	2,2',2"-Nitrilotriethanol	Oral	LD50 = 6,400 mg/kg	Rat	Study report (1966)	OECD Guideline 401
		Dermal	LD50 = >2,000 mg/kg	Rabbit	Other company data (1989)	OECD Guideline 402
2390-60-5	Basic Blue 7 (CI 42595)	Oral	ATE = 100 mg/kg			
85409-22-9	Alkyl (C12-C14) dimethyl benzyl ammonium chloride (ADBAC (C12-C14))	Oral	LD50 = 795 mg/kg	Rat	Study report (1986)	OECD Guideline 401
		Dermal	LD50 = 3412.5 mg/kg	Rabbit	Study report (1977)	EPA OPPTS 870.1200
Skin corrosion / irritation			Based on the available data, the classification criteria are not met.			
Serious eye damage / irritation			Causes serious eye irritation.			
Respiratory or skin sensitisation			Based on the available data, the classification criteria are not met.			
Mutagenicity			Based on the available data, the classification criteria are not met.			
Carcinogenicity			Based on the available data, the classification criteria are not met.			
Reproductive toxicity			Based on the available data, the classification criteria are not met.			
Specific target organ toxicity – single exposure			May cause drowsiness and dizziness (propan-2-ol; isopropyl alcohol; isopropanol).			
Specific target organ toxicity – repeated exposure			Based on the available data, the classification criteria are not met.			
Aspiration hazard			Based on the available data, the classification criteria are not met.			
11.2	Information on other hazards					
Other hazards			The mixture is classified as dangerous according to Regulation (EC) No 1272/2008 [CLP].			

12. Ecological information




12.1 Toxicity

Ecotoxicity

Based on the available data, the classification criteria are not met.

Cas no	Name of substance	Aquatic toxicity	Dosis	h/d	Species
67-63-0	Propan-2-ol	Acute fish toxicity	LC50 = 10,000 mg/l	96 h	Pimephales promelas
		Acute algae toxicity	ErC50 = >100 mg/l	72 h	Scenedesmus subspicatus
		Acute crustaceans toxicity	EL50 = 9,714 mg/l	48 h	Daphnia magna
		Fish toxicity	NOEC = >1,000 mg/l	28 d	Danio rerio
		Crustaceans toxicity	NOEC = >1,000	21 d	Daphnia magna
106-97-8	Butane	Acute bacteria toxicity	(EC50 = >100 mg/l)		
		Acute fish toxicity	LC50 = 49.9 mg/l	96 h	Fish, no other information
		Acute algae toxicity	ErC50 = 19.37 mg/l	96 h	Algae
74-98-6	Propane	Acute crustaceans toxicity	EC50 69.43 mg/l	48 h	Daphnia sp.
		Acute fish toxicity	LC50 = 49.9 mg/l	96 h	Fish, no other information
		Acute algae toxicity	ErC50 = 19,37 mg/l	96 h	Algae
102-71-6	2,2',2''-Nitrioltriethanol	Acute crustaceans toxicity	EC50 69.43 mg/l	48 h	Daphnia sp.
		Acute fish toxicity	LC50 = 11,800 mg/l	96 h	Pimephales promelas
		Acute algae toxicity	ErC50 = 512 mg/l	72 h	Desmodesmus subspicatus
		Acute crustaceans toxicity	EC50 = 609.88 mg/l	48 h	Ceriodaphnia dubia
85409-22-9	Alkyl (C12-C14) dimethyl benzyl ammonium chloride (ADBAC (C12-C14))	Crustaceans toxicity	NOEC = 16 mg/l	21 d	Daphnia magna
		Acute fish toxicity	LC50 = 0.93 mg/l	96 h	Danio rerio (Zebraabärbling)
		Acute algae toxicity	ErC50 = 0.01 mg/l	96 h	Pseudokirchneriella subcapitata
		Acute crustaceans toxicity	EC50 = 0.016 mg/l	48 h	Daphnia magna
		Fish toxicity	NOEC 0.0322 mg/l	28 d	
		Crustaceans toxicity	NOEC 0.00415 ,g/l	21 d	
		Acute bacteria toxicity	(EC50 7.75 mg/l)	3 h	

12.2	Persistence and degradability				
Persistence and degradability There is no information available.					
Cas no	Name of substance	Methode	d	Value	Assessment
67-63-0	Propan-2-ol	Biodegradation	21	95%	Readily biodegradable (according to OECD criteria).
102-71-6	2,2',2"-Nitrilotriethano	Biodegradation	5	100%	Readily biodegradable (according to OECD criteria).
12.3	Bioaccumulation				
Bioaccumulation There is no information available.					
Cas no	Name of substance	Log Pow	BCF	Species	
67-63-0	Propan-2-ol	0.05	0.994		
106-97-8	Butane	1.09			
74-98-6	Propane	1.09			
102-71-6	2,2',2"-Nitrilotriethanol	-2.3	<0.4	Cyprinus carpio	
85409-22-9	Alkyl (C12-C14) dimethyl benzyl ammonium chloride (ADBAC (C12-C14))	-0.21	79	Lepomis macrochirus	
12.4	Mobility in soil				
Mobility		There is no information available.			
12.5	Results of PBT and vPvB assesment				
Evaluation		The substances in the mixture do not fulfil the PBT/vPvB criteria according to REACH, Annex XIII.			
12.6	Endocrine disrupting properties				
Endocrine disrupting potential		This product does not contain any substance with endocrine disrupting properties towards non-target organisms at a concentration of $\geq 0.1\%$, as no ingredient fulfils the criteria.			
12.7	Other adverse effects				
Other adverse effects		There is no information available. <i>Further information:</i> Avoid release into the environment.			
13. Disposal considerations					
13.1	Waste treatment methods				
Waste from residues / unused products		Do not let the product end up in sewers or watercourses. Dispose of in accordance with applicable local and national regulations.			
European list of waste products		16 05 04 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances.			
Removal of contaminated packaging		Completely emptied packaging can be recycled.			

14. Transport information		
Transport per road, rail or inland waterways (ADR/RID/ADN)	14.1 UN-number: 14.2 UN proper shipping name: 14.3 Transport hazard class(es): 14.4 Packing group:	UN 1950 AEROSOLS 2 Not assigned to a packing group. Danger label: 2.1  Classification code: 5F Special provisions: 190 327 344 625 Limited quantities (LQ): 1 L Excepted quantities: E0 Transport category: 2 Tunnel restriction code: D
Transport per marine ship (IMDG)	14.1 UN-number: 14.2 UN proper shipping name: 14.3 Transport hazard class(es): 14.4 Packing group:	UN 1950 AEROSOLS 2.1 Not assigned to a packing group. Marine pollutant: not available. Danger label: 2.1  Special provisions: 63 190 277 327 344 381 959 Limited quantities (LQ): 1 L Excepted quantities: E0 EmS: F-D, S-U
Transport by air (ICAO-IATA)	14.1 UN-number: 14.2 UN proper shipping name: 14.3 Transport hazard class(es): 14.4 Packing group:	UN 1950 AEROSOLS, FLAMMABLE 2.1 Not assigned to a packing group. Danger label: 2.1  Special provisions: A145 A167 A802 Limited quantities (LQ) passenger: 30 kg Passenger LQ: Y203 Excepted quantities: E0 IATA packing instruction – passenger: 203 IATA maximum quantity – passenger: 75 kg IATA packing instruction – cargo: 203 IATA maximum quantity – cargo: 150 kg

14.5	<u>Environmental hazards</u>	
	Environmentally hazard	No.
	Marine pollutant	Not available.
14.6	<u>Special precautions for user</u>	
	Caution: flammable gases. No special precautions are required.	
14.7	<u>Maritime transport in bulk according to IMO instruments</u>	
	Not applicable.	
15.	Regulatory information	
15.1	<u>Safety, health and environmental regulations/legislation specific for the substance or mixture</u>	
	Relevant EU rule(s)	<p><i>Restrictions on use (REACH, Annex XVII):</i> Entry 3, Entry 40, Entry 75. <i>Information on IE Guideline 2010/75/EU (VOC):</i> 99.76 % (673.38 g/l). <i>Information on the VOC Guideline 2004/42/EC:</i> 99.819 % (673.777 g/l). <i>Information on the SEVESO III Guideline 2012/18/EU:</i> P3a Flammable Aerosols. <i>Additional information:</i> Aerosol Directive (75/324/EEC).</p>
	National regulations	<p>Germany <i>Employment restrictions:</i> Observe the employment restrictions for young people (§ 22 JArbSchG). <i>Water hazard class:</i> 1 – slightly dangerous to water. <i>Status:</i> Classification of mixture according to Annex 1, no. 5 AwSV.</p>
15.2	<u>Chemical Safety Assessment</u>	
	No chemical safety assessments have been carried out for substances in this mixture.	

16. Other information									
Indication of changes (revised safety data sheet)	Alignment to regulation. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU. Restructuring and revising sections 1 to 15.								
Sources of used key data	This information is based on the currently available information (Producer(s)). See also the website: http://apps.echa.europa.eu/registered/registered-sub.aspx#search .								
(EU)H-statement(s)	H220 Extremely flammable gas. H222 Extremely flammable aerosol. H225 Highly flammable liquid and vapour. H229 Pressurized container: may burst if heated. H280 Contains gas under pressure; may explode if heated. H301 Toxic if swallowed. H302 Harmful if swallowed. H314 Causes serious skin burns and eye damage. H318 Causes serious eye damage. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects.								
Classification procedure	Classification of mixtures and assessment method used according to Regulation (EC) No 1272/2008 [CLP]. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Classification</th> <th style="text-align: left;">Classification procedure</th> </tr> </thead> <tbody> <tr> <td>Aerosol 1; H222-H229</td> <td>Based on test data</td> </tr> <tr> <td>Eye Irrit. 2; H319</td> <td>Bridging principle "Aerosols"</td> </tr> <tr> <td>STOT SE 3; H336</td> <td>Bridging principle "Aerosols"</td> </tr> </tbody> </table>	Classification	Classification procedure	Aerosol 1; H222-H229	Based on test data	Eye Irrit. 2; H319	Bridging principle "Aerosols"	STOT SE 3; H336	Bridging principle "Aerosols"
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List of abbreviations and acronyms	<p>CLP: Classification, Labelling and Packaging (Regulation (EC) no. 1272/2008).</p> <p>REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 /</p> <p>GHS: Globally Harmonized System of Classification and Labelling of Chemicals.</p> <p>UN: United Nations.</p> <p>CAS: Chemical Abstracts Service number.</p> <p>DNEL: Derived No Effect Level.</p> <p>DMEL: Derived Minimal Effect Level.</p> <p>PNEC: Predicted No Effect Concentration (concentration below which exposure to a substance will produce no effect).</p> <p>ATE: Acute toxicity estimate.</p> <p>LC50: Lethal Concentration to 50 % of a test population.</p> <p>LD50: Lethal Dose to 50% of a test population (Median Lethal Dose).</p> <p>LL50: Lethal loading, 50%.</p> <p>EL50: Effect loading, 50%.</p> <p>EC50: Effective Concentration 50%.</p> <p>ErC50: Effective Concentration 50%, growth rate.</p> <p>NOEC: No Observed Effect Concentration.</p> <p>BCF: Bio-Concentration Factor.</p> <p>PBT: persistent, bioaccumulative and toxic substance.</p> <p>vPvB : very persistent and very bioaccumulative.</p> <p>ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road).</p> <p>RID: Regulations concerning the International carriage of Dangerous goods by rail.</p> <p>ADN: Accord européen relatif au transport international des marchandises Dangereuses par voies de Navigation intérieure (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways).</p>								

IMDG: International Maritime Dangerous Goods code.
EmS: Emergency Schedule.
MFAG: Medical First Aid Guide.
IATA: International Air Transport Association (provisions concerning the international carriage of dangerous goods by air).
ICAO: International Civil Aviation Organization.
MARPOL: International Convention for the Prevention of Marine Pollution from Ships.
IBC: Intermediate Bulk Container.
VOC: Volatile organic component.
SVHC: Substances of Very High Concern.

This information is to our knowledge correct and complete on the date of issue of this safety data sheet. The information only concerns the product and does not give any guarantee for the quality and the completeness of the properties of the product, or in case of mixing or using in any other process. It remains the responsibility of the user to assure himself that the information is suitable and complete concerning the special use he makes of the product.
Holland Animal Care B.V. denies all responsibility for loss or damage resulting from the use of these data.

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