

Safety Data Sheet

161080, 161081 KRUUSE Blue-Spray, Aerosol

Replaces date: 18/03/2015

Revision date: 27/08/2021

Version: 2.0.0

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

1.1. Product identifier

Trade name: 161080, 161081 KRUUSE Blue-Spray, Aerosol

Article no

Article no	Description
161080	
161081	

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

Recommended uses: Marking colour for animals.

1.3. Details of the supplier of the safety data sheet

Supplier

Company: Jørgen Kruuse A/S
Address: Havretoften 4
Zip code: 5550
City: Langeskov
Country: DENMARK
E-mail: info@kruuse.com, kruuse.norge@kruuse.com, kruuse.svenska@kruuse.com
Phone: +4572141511
Fax: +4572141600
Homepage: www.kruuse.com

1.4. Emergency Telephone Number

Members of the public: 111 (NHS 111 (Scotland: NHS 24))

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

CLP-classification: Aerosol 1;H222 Aerosol 1;H229 Eye Irrit. 2;H319

Most serious harmful effects: Extremely flammable aerosol. Pressurised container: May burst if heated. Causes serious eye irritation. The product releases organic solvent vapours which may cause lethargy and dizziness. At high concentrations, the vapours may cause headache and intoxication.

2.2. Label elements

Pictograms



Signal word: Danger

H-phrases

H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.

Safety Data Sheet

161080, 161081 KRUUSE Blue-Spray, Aerosol

Replaces date: 18/03/2015

Revision date: 27/08/2021
Version: 2.0.0

H319 Causes serious eye irritation.

P-phrases

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.
P410+412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

2.3. Other hazards

The product does not contain any PBT or vPvB substances.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Substance	CAS No./ EC No./ REACH Reg. No.	Concentration	Notes	CLP-classification
ethanol	64-17-5 200-578-6 01-2119457610-43	60 - 90%		Flam. Liq. 2;H225 Eye Irrit. 2;H319
propane	74-98-6 200-827-9	5 - 25%		Flam. Gas 1A;H220
butane	106-97-8 203-448-7	5 - 25%		Flam. Gas 1A;H220

Please see section 16 for the full text of H- / EUH-phrases..

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation: Seek fresh air. Seek medical advice in case of persistent discomfort.
Ingestion: Wash out mouth thoroughly and drink 1-2 glasses of water in small sips. Seek medical advice in case of discomfort.
Skin contact: Remove contaminated clothing. Wash the skin with water. Seek medical advice in case of persistent discomfort.
Eye contact: Flush immediately with water (preferably using eye wash equipment) for at least 5 minutes. Open eye wide. Remove any contact lenses. Seek medical advice.
Burns: Flush with water until pain ceases. Remove clothing that is not stuck to the skin - seek medical advice/transport to hospital. If possible, continue flushing until medical attention is obtained.
General: When obtaining medical advice, show the safety data sheet or label.

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

Irritating to eyes. Causes a burning sensation and tearing. Inhalation of spray mist may cause irritation to the upper airways. May irritate the skin - may cause reddening. The product releases organic solvent vapours which may cause lethargy and dizziness. At high concentrations, the vapours may cause headache and intoxication.

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

Treat symptoms. No special immediate treatment required.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Safety Data Sheet

161080, 161081 KRUUSE Blue-Spray, Aerosol

Replaces date: 18/03/2015

Revision date: 27/08/2021
Version: 2.0.0

Suitable extinguishing media: Extinguish with powder, foam or water mist. Use water or water mist to cool non-ignited stock.

Unsuitable extinguishing media: Do not use water stream, as it may spread the fire.

5.2. Special hazards arising from the substance or mixture

The product decomposes when combusted and the following toxic gases can be formed: Carbon monoxide and carbon dioxide. CAUTION! Aerosol containers may explode.

5.3. Advice for firefighters

Wear Self-Contained Breathing Apparatus (SCBA) with chemical resistant gloves. Move containers from danger area if it can be done without risk. Avoid inhalation of vapour and flue gases - seek fresh air.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Wear safety goggles. Wear gloves. Keep unnecessary personnel away. Provide adequate ventilation. Smoking and naked flames prohibited. In case of insufficient ventilation, wear respiratory protective equipment.

For emergency responders: In addition to the above: Protective suit equivalent to EN 368, type 3, is recommended.

6.2. Environmental precautions

Avoid unnecessary release to the environment.

6.3. Methods and material for containment and cleaning up

Wipe up drops and splashes with a cloth. Provide good ventilation.

6.4. Reference to other sections

See section 8 for type of protective equipment. See section 13 for instructions on disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Work under effective process ventilation (e.g. local exhaust ventilation). Running water and eye wash equipment must be available. Smoking and naked flames prohibited. Wash hands before breaks, before using restroom facilities, and at the end of work.

7.2. Conditions for safe storage, including any incompatibilities

Store safely, out of reach of children and away from food, animal feeding stuffs, medicines, etc. Pressurized container: Protect from sunlight and do not expose to temperatures exceeding 50°C. Storage temperature: 10 - 50 °C.

7.3. Specific end use(s)

No special uses in addition to identified uses in 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit

Substance name	Time period	ppm	mg/m ³	fiber/cm ³	Comments	Remarks
ethanol	8h	1.000	1.920			

Safety Data Sheet

161080, 161081 KRUUSE Blue-Spray, Aerosol

Replaces date: 18/03/2015

Revision date: 27/08/2021
Version: 2.0.0

Measuring methods: Compliance with occupational exposure limits may be checked by occupational hygiene measurements.

Legal basis: EH40/2005 Workplace exposure limits. Last amended January 2020.

PNEC

ethanol, cas-no 64-17-5				
Exposure	Value	Assessment Factor	Extrapolation Method	Note
PNEC sediment (marine water)	284,7 mg/kg			
PNEC STP (wastewater-treatment facilities)	709 mg/l			
PNEC sediment (freshwater)	284,74 mg/kg			
PNEC aqua (marine water)	55,8 mg/l			
PNEC aqua (freshwater)	55,8 mg/l			
PNEC soil	22,5 mg/kg			

DNEL - workers

ethanol, cas-no 64-17-5					
Exposure	Value	Assessment Factor	Dose Descriptor	Main Impact Parameter	Note
Inhalation DNEL (acute/short-term exposure - local effects)	1900 mg/m ³				
Dermal DNEL (long-term exposure - systemic effects)	343 mg/kg				
Inhalation DNEL (long-term exposure - systemic effects)	600 mg/m ³				

DNEL - general population

ethanol, cas-no 64-17-5					
Exposure	Value	Assessment Factor	Dose Descriptor	Main Impact Parameter	Note
Inhalation DNEL (acute/short-term exposure - local effects)	950 mg/m ³				
Inhalation DNEL (long-term exposure - systemic effects)	114 mg/m ³				
Dermal DNEL (long-term exposure - systemic effects)	206 mg/kg				
Oral DNEL (long-term exposure - systemic effects)	87 mg/kg				

8.2. Exposure controls

Appropriate engineering controls: Wear the personal protective equipment specified below.

Personal protective equipment, eyeface protection: Wear safety goggles. Eye protection must conform to EN 166.

Safety Data Sheet

161080, 161081 KRUUSE Blue-Spray, Aerosol

Replaces date: 18/03/2015

Revision date: 27/08/2021

Version: 2.0.0

Personal protective equipment, hand protection: Wear gloves. Type of material: Nitrile rubber. Breakthrough time has not been determined for the product. Change gloves often. Gloves must conform to EN 374.
The suitability and durability of a glove is dependant on usage, e.g. frequency and duration of contact, glove material thickness, functionality and chemical resistance. Always seek advice from the glove supplier.

Personal protective equipment, respiratory protection: In case of insufficient ventilation, wear respiratory protective equipment. Filter type: A. Respiratory protection must conform to one of the following standards: EN 136/140/145.

Environmental exposure controls: Ensure compliance with local regulations for emissions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Parameter	Value/unit
State	Aerosol
Colour	Blue
Odour	Characteristic
Solubility	No data

Parameter	Value/unit	Remarks
Odour threshold	No data	
Melting point	No data	
Freezing point	No data	
Initial boiling point and boiling range	No data	
Flammability (solid, gas)	No data	
Flammability limits	No data	
Explosion limits	No data	
Flash Point	No data	
Auto-ignition temperature	No data	
Decomposition temperature	No data	
pH (solution for use)	No data	
pH (concentrate)	No data	
Kinematic viscosity	No data	
Viscosity	No data	
Partition coefficient n-octanol/water	No data	
Vapour pressure	No data	
Density	No data	
Relative density	No data	
Vapour density	No data	
Relative density (sat. air)	No data	
Particle characteristics	No data	

9.2. Other information

Parameter	Value/unit	Remarks
Explosive properties		No data
Oxidising properties		No data

Other Information: None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Safety Data Sheet

161080, 161081 KRUUSE Blue-Spray, Aerosol

Replaces date: 18/03/2015

Revision date: 27/08/2021
Version: 2.0.0

No known data.

10.2. Chemical stability

The product is stable when used in accordance with the supplier's directions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Avoid heating and contact with ignition sources.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information

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

Acute toxicity - oral

ethanol, cas-no 64-17-5

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LD50		10470 mg/kg			

Spray mist in mouth may irritate mucous membranes in mouth and throat. The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

Acute toxicity - dermal

ethanol, cas-no 64-17-5

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rabbit	LD50		17100 mg/kg			

The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

Acute toxicity - inhalation

ethanol, cas-no 64-17-5

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LC50	4 h	124.7mg/l			

propane, cas-no 74-98-6

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Mouse	LC50	2 h	1237 mg/l			

butane, cas-no 106-97-8

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Mouse	LC50	2 h	1237 mg/l			

The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

Skin corrosion/irritation:

May cause slight irritation. The product does not have to be classified. Test data are not available.

Serious eye damage/eye irritation:

Irritating to eyes. Causes a burning sensation and tearing.

Safety Data Sheet

161080, 161081 KRUUSE Blue-Spray, Aerosol

Replaces date: 18/03/2015

Revision date: 27/08/2021
Version: 2.0.0

Respiratory sensitisation or skin sensitisation:	The product does not have to be classified. Test data are not available.
Germ cell mutagenicity:	The product does not have to be classified. Test data are not available.
Carcinogenic properties:	The product does not have to be classified. Test data are not available.
Reproductive toxicity:	The product does not have to be classified. Test data are not available.
Single STOT exposure:	The product releases organic solvent vapours which may cause lethargy and dizziness. At high concentrations, the vapours may cause headache and intoxication. The product does not have to be classified. Test data are not available.
Repeated STOT exposure:	The product does not have to be classified. Test data are not available.
Aspiration hazard:	The product does not have to be classified. Test data are not available.

11.2. Information on other hazards

Other toxicological effects: None known.

SECTION 12: Ecological information

12.1. Toxicity

ethanol, cas-no 64-17-5

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Fish	Pimephales promelas		96hLC50	15300 mg/l			
Crustacea	Daphnia magna		48hEC50	12340 mg/l			
Algae	Chlorella vulgaris		EC50 96hEC50	275 mg/l			

propane, cas-no 74-98-6

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Fish	Name of species not specified		96hLC50	27.98 mg/l			
Algae	Name of species not specified		96hEC50	7.71 mg/l			
Crustacea	Name of species not specified		48hLC50	14.22 mg/l			

butane, cas-no 106-97-8

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Fish	Name of species not specified		96hLC50	24.11 - 147.54mg/l			
Algae	Name of species not specified		96hEC50	7.71 - 19.37mg/l			
Crustacea	Name of species not specified		48hLC50	14.22 - 69.43mg/l			

The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

12.2. Persistence and degradability

Safety Data Sheet

161080, 161081 KRUUSE Blue-Spray, Aerosol

Replaces date: 18/03/2015

Revision date: 27/08/2021

Version: 2.0.0

ethanol, cas-no 64-17-5

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
		28 d		97 %			

propane, cas-no 74-98-6

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
		385,5 h		100 %		Biodegradation test, (predates, OECD test)	

butane, cas-no 106-97-8

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
		385,5 h		100 %		Biodegradation test, (predates, OECD test)	

The product contains at least one biodegradable substance.

12.3. Bioaccumulative potential

No bioaccumulation expected. Test data are not available.

12.4. Mobility in soil

Test data are not available.

12.5. Results of PBT and vPvB assessment

The product does not contain any PBT or vPvB substances.

12.6. Endocrine disrupting properties

None known.

12.7. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Avoid unnecessary release to the environment. Do not dispose of aerosol sprays in refuse collection, even when empty. The sprays must be sent to the municipal chemical waste collection facility.

Category of waste:

Aerosol sprays: EWC code: 16 05 04 Gases in pressure containers containing dangerous substances. Wiping cloths with organic solvents: EWC code: 15 02 02 Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances.

SECTION 14: Transport information

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): 2.1

Hazard label(s): 2.1

14.4. Packing group:

14.5. Environmental hazards:

The product should not be labelled as an environmental hazard (symbol: fish and tree).

Safety Data Sheet

161080, 161081 KRUUSE Blue-Spray, Aerosol

Replaces date: 18/03/2015

Revision date: 27/08/2021

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Hazard identification number: Tunnel restriction code: D

Inland water ways transport (ADN)

14.1. UN number or ID number:	1950	14.4. Packing group:	
14.2. UN proper shipping name:	AEROSOLS	14.5. Environmental hazards:	The product should not be labelled as an environmental hazard (symbol: fish and tree).
14.3. Transport hazard class(es):	2.1		
Hazard label(s):	2.1		
Transport in tank vessels:			

Sea transport (IMDG)

14.1. UN number or ID number:	1950	14.4. Packing group:	
14.2. UN proper shipping name:	AEROSOLS	14.5. Environmental hazards:	The product is not a Marine Pollutant (MP).
14.3. Transport hazard class(es):	2.1	Environmental Hazardous Substance Name(s):	
Hazard label(s):	2.1	IMDG Code segregation group:	- None -
EmS:	F-D, S-U		

Air transport (ICAO-TI / IATA-DGR)

14.1. UN number or ID number:	1950	14.4. Packing group:	
14.2. UN proper shipping name:	AEROSOLS, FLAMMABLE	14.5. Environmental hazards:	The product should not be labelled as an environmental hazard (symbol: fish and tree).
14.3. Transport hazard class(es):	2.1		
Hazard label(s):	2.1		

14.6. Special precautions for user

None.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

SECTION 15: Regulatory information

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

Special Provisions: Special care should be applied for employees under the age of 18. Young people under the age of 18 may not carry out any work causing harmful exposure to this product.
Directive 2012/18/EU (Seveso), P3a FLAMMABLE AEROSOLS: Column 2: 150 (net) t, Column 3: 500 (net) t.

Covered by:
Council Directive (EC) on the protection of young people at work.

15.2. Chemical Safety Assessment

Other Information: Chemical safety assessment has not been performed.

SECTION 16: Other information

Version history and indication of changes

Safety Data Sheet

161080, 161081 KRUUSE Blue-Spray, Aerosol

Replaces date: 18/03/2015

Revision date: 27/08/2021

Version: 2.0.0

Version	Revision date	Responsible	Changes
2.0.0	27/08/2021	Bureau Veritas HSE / KSV	1-5, 7-8, 10-16

Abbreviations:

PBT: Persistent, Bioaccumulative and Toxic
vPvB: Very Persistent and Very Bioaccumulative
STOT: Specific Target Organ Toxicity
DNEL: Derived No Effect Level
PNEC: Predicted No Effect Concentration

Other Information:

This safety data sheet has been prepared for and applies to this product only. It is based on our current knowledge and the information that the supplier was able to provide about the product at the time of preparation. The safety data sheet complies with applicable law on preparation of safety data sheets in accordance with 1907/2006/EC (REACH) as subsequently changed.

Training advice:

A thorough knowledge of this safety data sheet should be a prerequisite condition.

Classification method:

Calculation based on the hazards of the known components. Test data.

List of relevant H-statements

H220 Extremely flammable gas.
H222 Extremely flammable aerosol.
H225 Highly flammable liquid and vapour.
H229 Pressurised container: May burst if heated.
H319 Causes serious eye irritation.

SDS is prepared by

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