Safety Data Sheet

161040 KRUUSE Silicone spray

Replaces date: 22/04/2015

Revision date: 26/11/2020
Version: 1.1.0

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

1.1. Product identifier

Trade name: 161040 KRUUSE Silicone spray

Article no

Article no	Description
161040	

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

Recommended uses: Lubricant

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 Skin Irrit. 2;H315 STOT SE 3;H336 Aquatic Chronic 3;H412

Most serious harmful effects: Extremely flammable aerosol. Pressurised container: May burst if heated. Causes skin irritation. May cause drowsiness or dizziness. Harmful to aquatic life with long lasting effects. Inhalation of spray mist may cause chemical pneumonia.

2.2. Label elements

Pictograms

Signal word: Danger

Contains

Substance: Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane;

H-phrases

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

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.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+352	IF ON SKIN: Wash with plenty of water
P410+412	Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122°F.

2.3. Other hazards

Assessment to determine PBT and vPvB has not been made.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Substance	CAS No	EC No	REACH Reg. No.	Concentration	Notes	CLP-classification
butane	106-97-8	203-448-7	01-2119474691-32	35 -< 40%		Flam. Gas 1;H220
propane	74-98-6	200-827-9	01-2119486944-21	15 -< 20%		Flam. Gas 1;H220
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	92128-66-0	921-024-6	01-2119475514-35	15 -< 20%	3	Flam. Liq. 2;H225 Asp. Tox. 1;H304 Skin Irrit. 2;H315 STOT SE 3;H336 Aquatic Chronic 2;H411

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

3 = H304 is not applicable due to use as aerosols.

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 persistent discomfort.

Skin contact: Remove contaminated clothing. Wash skin with soap and water. Seek medical advice in case of persistent discomfort.

Eye contact: Flush with water (preferably using eye wash equipment) until irritation subsides. Seek medical advice if symptoms persist.

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 skin - may cause reddening. Inhalation of spray mist may cause irritation to the upper airways. The product releases

organic solvent vapours which may cause lethargy and dizziness. At high concentrations, the vapours may cause headache and intoxication. Inhalation of spray mist may cause chemical pneumonia.

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

Treat symptoms. No special immediate treatment required.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media: Extinguish with powder, foam, carbon dioxide 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

Explosive mixtures may form with air when heated/exposed to fire. CAUTION! Aerosol containers may explode. Can generate harmful flue gases containing carbon monoxide in the event of fire.

5.3. Advice for fire-fighters

Move containers from danger area if it can be done without risk. Avoid inhalation of vapour and flue gases - seek fresh air. Wear Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Stay upwind/keep distance from source. Wear safety goggles if there is a risk of eye splash. Wear gloves. Provide adequate ventilation. Smoking and naked flames prohibited.

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

Contain and absorb spill with sand or other absorbent, non-combustible material and transfer to suitable waste containers. Wipe up drops and splashes with a cloth.

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

Use the product under well-ventilated conditions, preferably outdoors. Avoid contact with skin and eyes. Running water and eye wash equipment must be available. Wash hands before breaks, before using restroom facilities, and at the end of work. Smoking and naked flames prohibited. Take precautionary measures against static discharges. Use spark-free tools and explosion proof equipment.

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. Store in a dry, cool, well-ventilated area. Keep in tightly closed original packaging.
Do not store with the following: Oxidisers.

7.3. Specific end use(s)

None.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit

Substance name	Time period	ppm	mg/m³	fiber/cm3	Comments	Remarks
butane	8h	600	1.450			
butane	15m	750	1.810			
n-hexane	8h	20	72			
heptane	8h	500	2085			

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

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

DNEL - workers

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane, cas-no 92128-66-0					
Exposure	Value	Assessment Factor	Dose Descriptor	Main Impact Parameter	Note
Dermal DNEL (long-term exposure - systemic effects)	773 mg/kg				
Inhalation DNEL (long-term exposure - systemic effects)	2035 mg/m³				

DNEL - general population

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane, cas-no 92128-66-0					
Exposure	Value	Assessment Factor	Dose Descriptor	Main Impact Parameter	Note
Dermal DNEL (long-term exposure - systemic effects)	699 mg/kg				
Inhalation DNEL (long-term exposure - systemic effects)	608 mg/m³				
Oral DNEL (long-term exposure - systemic effects)	699 mg/kg				

8.2. Exposure controls

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

Personal protective equipment, eye/face protection: Wear safety goggles if there is a risk of eye splash. Eye protection must conform to EN 166.

Personal protective equipment, skin protection: Wear suitable protective clothing.

Personal protective equipment, hand protection: Wear gloves. Type of material and thickness: Nitrile rubber/ 0,35 mm. Butyl rubber/ 0,5 mm. Penetration time: >8 hours. 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: Not required. Heavy use (high volume, longterm contact (more than 2 hours)): In case of risk of formation of spray mist, wear respiratory protective equipment with P2 filter.

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	Colourless
Odour	Characteristic
Solubility	Insoluble in the following: Water. (20 °C)
Explosive properties	No data
Oxidising properties	No data

Parameter	Value/unit	Remarks
pH (solution for use)	No data	
pH (concentrate)	No data	
Melting point	No data	
Freezing point	No data	
Initial boiling point and boiling range	< -20 °C	
Flash Point	< -20 °C	
Evaporation rate	No data	
Flammability (solid, gas)	> 200 °C	
Flammability limits	No data	
Explosion limits	0.6 - 15 vol%	
Vapour pressure	No data	
Vapour density	No data	
Relative density	0.64 g/cm³	20 °C
Partition coefficient n-octonol/water	No data	
Auto-ignition temperature	No data	
Decomposition temperature	No data	
Viscosity	No data	
Odour threshold	No data	

9.2 Other information

Parameter	Value/unit	Remarks
VOC (Volatile organic compounds):	76 % (486,4 g/l)	

SECTION 10: Stability and reactivity

10.1. Reactivity

The product may ignite on contact with e.g. heat or a spark.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

Product vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

10.4. Conditions to avoid

Avoid heating and contact with ignition sources.

10.5. Incompatible materials

Avoid contact with the following: Oxidisers.

10.6. Hazardous decomposition products

Product decomposes in fire conditions or when heated to high temperatures, and inflammable and toxic gases may be released.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane, cas-no 92128-66-0

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LD50		> 5000mg/kg			

Ingestion may cause discomfort. 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

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane, cas-no 92128-66-0

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LD50		2800 - 3100mg/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

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane, cas-no 92128-66-0

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LC50 (vapour)	4 h	> 25.2mg/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 irritate the skin - may cause reddening.

Serious eye damage/eye irritation: Temporary irritation. The product does not have to be classified. Test data are not available.

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.

Repeated STOT exposure: The product does not have to be classified. Test data are not available.

Aspiration hazard: Inhalation of spray mist may cause chemical pneumonia. The product does not have to be classified. Test data are not available.

SECTION 12: Ecological information

12.1. Toxicity

butane, cas-no 106-97-8

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Fish	Name of species not specified		96hLC50	49.9mg/l			
Algae	Name of species not specified		96hErC50	19.37mg/l			
Crustacea	Daphnia sp.		48hEC50	69.43mg/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	49.9mg/l			
Algae	Name of species not specified		96hErC50	19.37mg/l			
Crustacea	Daphnia sp.		48hEC50	69.43mg/l			

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane, cas-no 92128-66-0

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Fish	Oncorhynchus mykiss		96hLC50	11.4 mg/l		OECD 203	
Crustacea	Daphnia magna		48hEC50	3 mg/l		OECD 202	
Crustacea	Daphnia magna		21dNOEC	1 mg/l		OECD 211	
Algae	Pseudokirchneriella subcapitata		72hErC50	10 - 30mg/l		OECD 201	
Fish	Oncorhynchus mykiss		28dNOEC	2.045 mg/l			

Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane, cas-no 92128-66-0

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
		28 d		98 %			

Expected to be biodegradable.

12.3. Bioaccumulative potential

butane, cas-no 106-97-8

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
			Log Pow	1.09			

propane, cas-no 74-98-6

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
			Log Pow	1.09			

12.4. Mobility in soil

Test data are not available.

12.5. Results of PBT and vPvB assessment

No assessment has been made.

12.6. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Avoid unnecessary release to the environment. If this product as supplied becomes a waste, it meets the criteria of a hazardous waste (Dir. 2008/98/EU). Collect spills and waste in closed, leak-proof containers for disposal at the local hazardous waste site. 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-No.:	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		
Hazard identification number:		**Tunnel restriction code:**	D
Other Information:	-		

Inland water ways transport (ADN)

14.1. UN-No.:	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:	-	**Other Information:**	-

Sea transport (IMDG)

14.1. UN-No.:	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		
EmS:	F-D, S-U	**IMDG Code segregation group:**	- None -

Air transport (ICAO-TI / IATA-DGR)

14.1. UN-No.:	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	**Other Information:**	-

14.6. Special precautions for user

None.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Not included.

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.

Covered by:
Council Directive (EC) on the protection of young people at work.
Directive 2012/18/EU (Seveso), P3a FLAMMABLE AEROSOLS: Column 2: 150 (net) t, Column 3: 500 (net) t.

15.2. Chemical Safety Assessment

Other Information: Chemical safety assessments have been performed for the following substances:
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane
propane
butane

SECTION 16: Other information

Version history and indication of changes

Version	Revision date	Responsible	Changes
1.1.0	26/11/2020	Bureau Veritas HSE / RBE	1-16

Abbreviations: PBT: Persistent, Bioaccumulative and Toxic
PNEC: Predicted No Effect Concentration
STOT: Specific Target Organ Toxicity

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.
H304	May be fatal if swallowed and enters airways.

H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

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