MATERIAL SAFETY DATA SHEET

On the basis of REACH Order (EC) No. 1907/2006 of the European Parliament and Council dated 18th December 2006 concerning the registration, evaluation and authorisation of chemicals (REACH), the establishing of the European Chemicals Agency, amending the directive 1999/45/EC and revoking the order of the Council (EEC) No. 793/93 and the order of the Commission (EC) No. 1488/94, as well as the Council's directive 76/69/EEC and Commission's directive 91/155/EEC, 93/105/EC and 2000/21/EC (the Journal of Laws of the European Union series L, No. 396 as of 30th December 2006)

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SILICONE SPRAY FOR CAR SEALS

- 1. Identification of preparation. Identification of company.
 - 1.1. Product trade name: SILICONE SPRAY FOR CAR SEALS aerosol KTM 19-031
 - 1.2. **Product application**: Silicone spray for car seals
 - 1.3. Producer:

Name and address of the company: NANOCHEM Sp. z o.o.

ul. Schonów 3

41-200 Sosnowiec

Telephone number: **(032) 317 34 30** Fax number: **(032) 317 34 32**

- 1.4. Emergency telephone: + 48 42 65 79 900, 42 63 14 767
- 1.5. Person responsible for preparing material safety data sheets: Anna Nowak Email: anna@nanochem.com.pl

2. Threat identification.

According to legal regulations the mixture has been classified as dangerous. **Health hazard**: has an irritating effect on eyes and skin. Has a harmful effect; can damage lungs if swallowed. Vapours may cause drowsiness and dizziness.

Hazardous properties: extremely flammable product.

Hazard to environment: the mixture does not pose a threat to a water environment. Do not dump the product in the environment.

3. Composition and information on components

Components:	%	CAS	EC	Hazard classification
n-hexane	< 2%	110-54-3	203-777-6	F.Xn,N,Repro. Cat. 3, R11, R38 R48/20,R51/53,R62, R65,R67
ethanol	< 2%	64-17-5	200-578-6	F; R11
Propan-2ol	< 1,5%	67-63-0	200-661-7	F; Xi; R11, 36,67
Light petrol treated with hydrogen (crude oil)	< 18%	64742-49-0	265-151-9	Xn; R65*
Izobutane	< 35%	75-28-5	200-857-2	F⁺, R12

Chemical character: A mixture of solvents

* The classification included H and P values.

In line with the producer's declaration the substance is not classified as carcinogenic.

4. First aid

Swallowing: Flush the mouth. Do not give an injured person anything to drink or eat. Do not induce vomiting. Seek medical assistance, show the label to a doctor.

Inhalation poisoning:

Move an injured person from the affected area and provide access to fresh air as well as quiet and rest. In the event of ailments (cough, vomiting, dizziness, whizzing breath) seek medical assistance. An unconscious person should be placed in the lateral position.

Skin contamination:

Take off contaminated clothing. Wash the skin with warm soapy water. If the skin is irritated, seek medical advice.

Eye contamination:

If the injured person is wearing contact lenses, remove them immediately. Thoroughly flush the eyes with a large amount of water while turning up the eyelids. Provide an ophthalmologist's assistance.

<u>CAUTION</u>: persons exposed to eye contamination should be informed of the necessity and manner of immediate eye flushing.

5. Fire-fighting procedures

Fire hazard: the product is extremely flammable. Incomplete combustion products contain carbon oxide, vapours and aerosols of the product form flammable and explosive mixtures with air, vapours are heavier than air and accumulate near the surface as well as in lower parts of rooms.

Extinguishing media: extinguishing foams and powders. Big fires should be quenched with water (diffused streams) and small ones with extinguishing powder, carbon dioxide, do not use a full stream of water. Neighbouring containers should be removed from the endangered area, if possible; if not, they should be cooled with sprayed water.

Individual protection equipment for fire-fighters: breathing apparatus and full protective clothing should be used.

6. Procedures in the case of accidental release to the environment

Prevent a potential release of the preparation into the environment.

General recommendations:

In the event a bigger amount of the product is released, the contaminated area should be isolated from the environment, and outsiders moved away. First off, all the source of contamination has to be cut off and secured. The released product must be collected and handed over for utilisation. Ensure proper ventilation. Call a rescue team.

Personal precautions:

Avoid direct contact with the product, in particular take care of the eyes and skin. Do not inhale vapours. Use protective clothing and protective gloves.

Precautions within the scope of environmental protection:

Limit or remove the leakage. Provide embankments over the spillage so as to prevent the preparation from penetrating into the environment: ground, sewage system, water reservoirs, surface waters. If possible, deliver the product to a recycling facility. The remaining contaminations should be removed by means of absorbing materials: sand, diatomaceous earth or other absorptive materials. Rinse the contaminated area with plenty of water. Waste should be collected in appropriate containers, burned in authorised incinerating plants or stored on specialist dumping grounds. Follow the relevant regulations in force.

Other directives: The product is lighter than water, it floats on the water surface.

7. Handling and storage of the preparation

When using and storing the preparation observe the OSH (Occupational Safety and Health) regulations in force.

Handling the preparation:

Do not eat or drink, avoid contact with the liquid, observe personal hygiene rules, use protective clothing and protective equipment, avoid inhaling the aerosol vapours.

Prevention of fires and explosions:

Eliminate the sources of ignition – do not use an open fire, do not smoke, do not use sparking tools and clothing made of fabric susceptible to electrisation, take precautions in order to avoid electrostatic discharge.

Pressurised containers must be protected from the sun and heat over 50°C. Do not pierce or burn containers, even if used. Do not spray over open flames or glowing materials. Protect from the sources of ignition – do not smoke when spraying.

Storage:

Store in original factory closed containers.

Keep away from the sources of fire and heat. On the premises of the warehouse observe the ban on smoking, using an open fire or sparking tools. The storage room should be dry and equipped with gravitational ventilation.

Storage temperature: -10 to +25°C.

8. Exposure control and individual protection equipment

Personal protection equipment requirements:

The applied personal protection equipment should meet the requirements of the order on basic requirements to be fulfilled by individual protection equipment issued by the Minister of Economy, Labour and Social Policy dated 31st March 2003 (the Journal of Laws No. 80, item 725).

Respiratory tracks protection: apply in the absence of proper ventilation

Eyes and face protection: airtight protective goggles, face shield

Skin protection: protective rubber gloves

Technical protection means: general room ventilation

The highest admissible concentrations:

or propane 2-ol:	NDS = 900 mg/m ³ ; NDSCH = 1200 mg/m^3 ;
or light petrol treated with hydrogen: the same as for naphtha	NDS = 100 mg/m ³ ; NDSCH = 300 mg/m^3
or ethanol:	NDS = 1900 mg/m ³
or n-hexane:	NDS = 72 mg/m ³ ; NDSCH = 400 mg/m ³
or isobutane: unspecified, for butane with similar properties:	NDS = 1900 ma/m^3 : NDSCH = 3000 ma/m^3

ig/m³ (according to the order on the highest admissible concentration and intensity of factors harmful to health in a work environment issued by the Minster of Labour and Social Policy on 29th November 2002 (the Journal of Laws No. 217, item 1833 with amendments and the Journal of Laws No. 212 item 1769 as of 10.10.2005).

9. Physical and chemical properties

State of aggregation at 2 Liquid in aerosol conta	of aggregation at 20°C d in aerosol container		Colour transparent to opaque		Smell Characteristic
Boiling temp. [°C] No data available	Melting point [°C] No data available		Flash point [°C] Below 0°C		Self-ignition temp. [°C] No data available
Upper explosiveness li [% V/V]	mit	Lower explosiveness limit [% V/V]		Vapour pressure [hPa] at 180°C	
No data available	a available No data available		a avallable		No data available
Density [kg/m ³] at 20°C		рН		۱	/iscosity [mPa s] at 20°C
~720 kg/m³		Not applicable			No data available
Refractive index		Solubility in water		Sc	olubility in organic solvents
Flammability flammable		Oxidizing properties Not applicable		The but n	Explosive properties product is not explosive, nixtures of its vapours with air may be explosive
Octanol/water partition coe No data available	efficient	Other	properties -		

10. Stability and reactivity

Dangerous conditions: - heating the preparation to the temperature of over 50°C, direct sunlight, contact with a hot surface or a glowing material, sources of ignition, electrostatic discharges

Dangerous materials – oxidising mineral acids, nitrides, organic hydroperoxides and peroxides, oxidants and reducing agents

Dangerous decomposition products – no data available

11. Toxicological information

Toxicological data according to ESIS for n-hexane:

	N			
Acute toxicity-oral:	LD50 >2000 mg/kg (rat)			
Acute toxicity-skin:	LD50 >2000 mg/kg (rat)			
Acute toxicity-inhalation:	LD50 >20 mg/kg/0,5h (rat)			
Toxicological data accordin	ng to ESIS for ethanol:			
Acute toxicity-oral:	LD50 6200 mg/kg (rat)			
Acute toxicity-skin:	LD50 >20000 mg/kg (rabbit)			
Acute toxicity-inhalation:	LD50 >8000 mg/kg/0,5h (rat)			
Toxicological data according to ESIS for propan 2-ol:				
Acute toxicity-oral:	LD50 5045 mg/kg (rat)			
Acute toxicity-skin:	LD50 1200 mg/kg (rabbit)			

Acute toxicity-inhalation: LD50 16000 ppm/8h (rat)

Acute toxicity: not applicable

Inhalation exposure: may cause headaches and dizziness, nausea, vomiting

Skin contact: may cause irritation and dryness of skin, including inflammatory conditions **Contact with eyes:** conjunctivitis may occur

Swallowing: stomachache, nausea, vomiting. May cause irritation of oral cavity, gullet and digestive system. In the event of lung aspiration the preparation may cause pneumonia.

Health effects of chronic exposure: severe irritation of mucous membranes of eyes and the respiratory tract, eye watering, fatigue, drowsiness, dizziness and headaches, stomachache.

Sensitising effect: does not cause allergies

Chronic effect: does not have a chronic effect

Mutagenic effect: does not have a mutagenic effect

Carcinogenic effect: does not have a carcinogenic effect

Effect on reproductiveness: does not influence reproductiveness

12. Ecological information

A very volatile product, quickly evaporates to the atmosphere in the event of release to a water environment. In the air decomposes quickly.

13. Handling the waste

Observe the regulations of the waste act dated 27th April 2001 (the Journal of Laws No. 62 item 628) with subsequent amendments.

Observe the regulations of the packaging and waste packaging act dated 27th May 2001 (the Journal of Laws No. 63 item 638) with subsequent amendments.

Destroy the waste in compliance with relevant waste disposal regulations.

Waste code:			
Product	-	16 05 05	- gases in containers other than those
			listed in 16 05 04
	-	07 07 04	- other organic solvents, washing
			solutions and mother liquors
Unit packaging	-	15 01 05	 steel tin. Multi-material packaging
	-	20 01 39	- cap. Plastics
Collective packaging	-	20 01 01	 paper and cardboard

14. Information on transport

Shipping name:	Silicone spray for car seals
	Aerosols
Material identification number:	UN 1950
ADR code:	2
Classification code:	2/5F
Packaging group:	11
Threat identification number:	20
Warning label:	2

15. Information on legal regulations

The substances and chemical preparations act dated 11th January 2001 (the Journal of Laws No. 11, item 84 as of 14th February 2001) with subsequent amendments.

Product classification according to the order on the criteria and manner of chemical preparations and substances' classification, issued by the Minister of Health on 2nd September 2003 (the Journal of Laws No. 171, item 1666 dated 2nd October 2003). Any works with the product should be performed in compliance with the regulations of IV section of 6th

Any works with the product should be performed in compliance with the regulations of IV section of 6th chapter D of the general OSH regulations order issued by the Minister of Labour and Social Policy on 26th September 1997 (the Journal of Laws No. 129 item 824) with subsequent changes (the Journal of Laws No. 91 /2002 item 811).

The product's marking must comply with the order on the marking of packaging for dangerous substances and dangerous preparations, issued by the Minister of Health on 2nd September 2003 (the Journal of Laws 173 item 1679 with amendments, the Journal of Laws 2004 No. 260, item 2595).

The order on detailed requirements to be fulfilled by aerosol products issued by the Minister of Economy on 20th December 2005 (the Journal of Laws No. 263 item 2199).

R 12	-	Extremely flammable product
R 36/38	-	Has an irritating effect on eyes and skin
R 65	-	Harmful; if swallowed, may cause lungs damage
R 67	-	Vapours may cause drowsiness and dizziness
S 2	-	Keep out of the reach of children
S 16	-	Do not store in the vicinity of ignition sources – do not smoke
S 23	-	Do not inhale liquid vapours
S24/S25	-	Avoid contamination of skin and eyes
S45	-	In emergency or if you feel bad, immediately seek medical advice - if
		possible, show the label
S51	-	Use only in well ventilated rooms



Extremely flammable

Note – the label must contain the following additional information:

Pressurised container: protect from sunlight and heat exceeding 50°C. Do not pierce or burn, even after use. Do not spray over open flames or glowing material. Protect from ignition sources – do not smoke when spraying. Keep out of the reach of children.

16. Additional information

The information contained in the sheet results from the current state of knowledge and experiences in the use of the product. The data on this product has been presented in order to fulfil safety requirements, and not to guarantee its functional properties.

An employer is obliged to inform his employees who have contact with the product of the threats and personal protection means specified in this material safety data sheet.

This material safety data sheet has been prepared on the basis of material safety data sheets for the components provided by their producers, the conducted tests as well as the binding regulations applying to dangerous substances and chemical preparations.

R symbols:

- R 11 Highly flammable product
- R 12 Extremely flammable product
- R 36 Has an irritating effect on eyes
- R 38 Has an irritating effect on skin
- R 48/20 Has a harmful effect via respiratory tracks; creates a serious threat to health as a result of long-term exposure
- R 51/53 Has a toxic effect on water organisms; may cause persisting unfavourable changes in a water environment
- R 62 Possible risk of impaired reproductiveness.
- R 65 Has a harmful effect; if swallowed, may cause lungs damage
- R 67 Vapours may cause drowsiness and dizziness

Changes in point 9