




MATERIAL SAFETY DATA SHEET

(in accordance with CE 1907/2006 – REACH)

1. Identification of the substance/preparation and of the company	
1.1 Product name:	BRAKE CLEANER
1.2 Relevant identified uses of the substance or mixture: Uses advises against:	lubricant in spray All except above indicated
1.3 Manufacturer/Supplier:	Nils S.p.A. Via Stazione, 30 39014 Postal (BZ) ITALY Tel. +39 0473 29 24 00 e-mail: nils@nils.it Fax: +39 0473 29 12 44 www.nils.eu
Reference to safety data sheet:	Tel +39 0473 292400 schedasicurezza@nils.it
1.4 Emergency telephone number:	Nils S.p.A.: +39 0473 29 24 00 (only available during office hours) Centro Antiveleni Ospedale Niguarda Milano: +39 02 66101029
2. Hazards identification	
2.1 Class. Accord. to CE 1272/2008:	<u>Hazard categories:</u> Aerosol: Aerosol 1 Skin corrosion/irritation: Skin Irrit. 2 Serious eye damage/eye irritation: Eye Irrit. 2 Specific target organ toxicity - single exposure: STOT SE 3 Hazardous to the aquatic environment: Aquatic Chronic 2 <u>Hazard Statements:</u> Extremely flammable aerosol. Pressurised container: May burst if heated. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. Toxic to aquatic life with long lasting effects.
2.2 Label elements CE 1272/2008: Pictograms:	   GHS02 GHS07 GHS09
Signal word:	Danger
Hazardous components which must be listed on the label	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane propan-2-ol; isopropyl alcohol; isopropanol
Hazard statements H:	H222 Extremely flammable aerosol. H229 Pressurised container: May burst if heated. H315 Causes skin irritation. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H411 Toxic to aquatic life with long lasting effects.

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Precautionary statements P:			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. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. P501 Dispose of contents/container to in accordance with local/regional/national/international regulation.		
2.3 Other hazards :			No information available.		
3. Composition/information on ingredients					
3.2 Mixtures					
Dangerous components:					
Nr. EINECS	Nr. CAS	Nr. Reach	Description	%	Class. 1272/08
921-024-6	-	01-2119475514-35	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane	80-<85	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411
200-661-7	67-63-0	01-2119457558-25	propan-2-ol; isopropyl alcohol; isopropanol	5-<10	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336
203-448-7	106-97-8	-	butane	2.5-<5	Flam. Gas 1, Liquefied gas; H220 H280
204-696-9	124-38-9	-	Carbondioxide	2.5-<5	Compressed gas; H280
200-827-9	74-98-6	-	propane	1-<2.5	Flam. Gas 1, Liquefied gas; H220 H280
203-777-6	110-54-3	-	n-hexane	0.5-<1	Flam. Liq. 2, Repr. 2, Asp. Tox. 1, STOT RE 2, Skin Irrit. 2, STOT SE 3, Aquatic Chronic 2; H225 H361f *** H304 H373 ** H315 H336 H411
203-806-2	110-82-7	-	cyclohexane	0.5-<1	Flam. Liq. 2, Asp. Tox. 1, Skin Irrit. 2, STOT SE 3, Aquatic Acute 1 (M-Factor = 1), Aquatic Chronic 1 (M-Factor = 1); H225 H304 H315 H336 H400 H410
Additional information:			Complete list H hazard statements is indicated in point 16 of this MSDS.		
Labelling for contents according to Regulation (EC) No 648/2004:			>= 30 % aliphatic hydrocarbons.		

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4. First aid measures	
4.1 General information:	Take affected person out of danger area and lay down. Place a person into stable position, lying on one side, even in case of transport, in case of breath difficulties place the person with the trunk raised. Consult a doctor
- after inhalation:	Provide fresh air. In case of respiratory tract irritation, consult a physician (if possible show the label of this product)
- after skin contact:	Remove contaminated clothes, wash with plenty of water. Launder contaminated clothing before reuse.
- after eye contact:	Rinse opened eye for several minutes under running water, consult a doctor
- after swallowing:	Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink plenty of water.
4.2 Most important symptoms and effects, both acute and delayed:	No data available
4.3 Indication of any immediate medical attention and special treatment needed:	Symptomatic treatment
5. Fire fighting measures	
5.1 Extinguishing media:	
Suitable extinguishing media:	Carbon dioxide (CO ₂), Foam, Extinguishing powder.
Unsuitable extinguishing media:	Water
5.2 Special hazards arising from the substance or mixture:	Flammable. Vapours can form explosive mixtures with air.
5.3 Advice for firefighters:	In case of fire: Wear self-contained breathing apparatus.
5.4 Additional information:	Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
6. Accidental release measures	
6.1 Personal precautions, protective equipment and emergency procedures:	Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.
6.2 Environmental precautions:	Do not allow uncontrolled discharge of product into the environment. Danger of explosion.
6.3 Methods and material for containment and cleaning up:	Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal .
6.4 Reference to other sections:	Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13



7. Handling and storage

- 7.1 Precautions for safe handling:**
Information about protection against explosions and fires:
7.2 Conditions for safe storage, including any incompatibilities:
7.3 Specific end use(s):
- Pressurized container: Do not pierce or burn, even after use. Use only in well-ventilated areas. Avoid breathing vapors or aerosols.
- Do not spray on naked flames or any incandescent material. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharge. Vapours can form explosive mixtures with air.
- Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Do not store together with: oxygen-rich material, oxidizing and combustible substances, pyrophoric or self-heating substances.
- Observe technical data sheet.

8. Exposure controls and personal protection

- 8.1 Control parameters:**
Exposure limits:
- TWA (8h): Exposure limit values
- | CAS | substance | ppm | mg/m ³ |
|----------|--|-----------|-------------------|
| - | Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane | - | 1500 |
| 74-98-6 | propane | 1000 | 1800 |
| 67-63-0 | Propan-2-ol (STEL 15min) | 400 (500) | 983 (1230) |
| 124-38-9 | Carbondioxide | 5000 | 9000 |
| 106-97-8 | Butane | 800 | 1900 |
| 110-82-7 | Cyclohexane | 100 | 350 |
| 110-54-3 | n-hexane | 20 | 72 |
- Biological limit values:**
- | CAS | substance | parameter | Limit value |
|----------|-----------|---------------|----------------|
| 110-54-3 | n-hexane | 2,5-esandione | 5 mg/g (urine) |
- 8.2 Exposure controls**
- Personal protective equipment:** Use only in well-ventilated areas. Avoid breathing vapors or aerosols.
- General protective and hygiene measures:** Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.
- Respiratory protection:** In case of inadequate ventilation wear respiratory protection. Suitable respiratory protection apparatus: Combination filtering device (EN 14387) A-P2

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-Hand protection:	When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. Suitable material: NBR (Nitrile rubber) (0,4 mm), FKM (fluoro rubber) (0,7 mm), Breakthrough time (maximum wearing time):>8h. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
-Eye protection:	Wear eye/face protection. Suitable eye protection: goggles, Eye glasses with side protection
-Body protection:	Wear anti-static footwear and clothing

9. Physical and chemical properties

Form: Colour: Odour:	aerosol clear characteristic
	Value Unit Method
Boiling point/Boiling range:	<-20 °C
Flash point:	<-20 °C
Danger of explosion: lower limit:	0.8 % vol
Danger of explosion: upper limit:	12 % vol
Ignition temperature	>200 °C
Oxidising properties:	Not oxidizing
Density at 20°C:	0.707 g/cm ³
Solubility in water:	insoluble

10. Stability and reactivity

10.1 Reactivity:	Flammable, Ignition hazard
10.2 Chemical stability:	The product is stable under storage at normal ambient temperatures.
10.3 Possibility of hazardous reactions:	No known hazardous reactions.
10.4 Conditions to avoid:	Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.
10.5 Incompatible materials:	No information available.
10.6 Hazardous decomposition products:	No known hazardous decomposition products.



11. Toxicological information

11.1 Information on toxicological effects:

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

CAS	Product	LD50 oral, rat (mg/kg)	LD50 dermal, rabbit (mg/kg)	LC50 inhalative (4h) vapour, rat
-	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane	>5000 mg/kg	>2000 mg/kg	> 20 mg/l
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	5840 mg/kg	13900 mg/kg	47.5 mg/l
106-97-8	Butane	-	-	658 ppm
-	Idrocarburi, C6-C7, n-alcani, isoalcani, cicloalcani, <5% n-esano	>5000 mg/kg	>2000 mg/kg	> 20 mg/l

Irritation and corrosivity:

Causes skin irritation.

Sensitising effects:

Causes serious eye irritation.

STOT-single exposure:

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

Severe effects after repeated or prolonged exposure:

May cause drowsiness or dizziness. (Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane), (propan-2-ol; isopropyl alcohol; isopropanol), (n-hexane), (cyclohexane)

Carcinogenic/mutagenic/toxic effects for reproduction:

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

Aspiration hazard:

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

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

This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP].

12. Ecological information

12.1 Toxicity:

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

CAS	Chemical name	method	dose	h	species
-	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane	fish, CL50 Algae, ErC50 Crustacea, EC50	11.4 mg/l 30 mg/l 3 mg/l	96 72 48	Oncorhynchus mykiss (Rainbow trout) Pseudokirchneriella subcapitata Daphnia magna (Big water flea)
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	fish, CL50 Algae, ErC50 Crustacea, EC50 bacteria	9640 mg/l >100 mg/l 13299 mg/l (>100 mg/l)	96 72 48	Fathead minnow Scenedesmus subspicatus Daphnia magna (Big water flea)
124-38-9	Carbondioxide	fish, CL50	35 mg/l	96	Oncorhynchus mykiss (Rainbow trout)
110-54-3	n-hexane	fish, CL50	2.5 mg/l	96	Pimephales promelas

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12.2 Persistence and degradability:		The product has not been tested.
CAS	Chemical name	Biodegradation
-	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane	81% - 28 days Readily biodegradable (according to OECD criteria).
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	53% - 5 days Readily biodegradable (according to OECD criteria).
12.3 Bioaccumulative potential:		The product has not been tested.
Partition coefficient n-octanol/water:		
CAS	Chemical name	Log Pow
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	0.05
106-97-8	Butane	2.89
110-54-3	n-hexane	3.9
12.4 Mobility in soil:		The product has not been tested.
12.5 Results of PBT and vPvB assessment:		The product has not been tested.
12.6 Other adverse effects:		Do not allow product to reach ground water, water course or sewage system.
13. Disposal considerations		
13.1 Waste treatment methods		Do not allow to enter into surface water or drains. Dispose of waste according to applicable local legislation.
-Waste key:		16 05 04 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing dangerous substances Classified as hazardous waste.
-Contaminated packaging:		Completely emptied and clean packages can be recycled. Handle contaminated packaging in the same way as the substance itself. Waste treatment in accordance with local official regulations.



14. Transport information

Land transport (ADR/RID)

14.1. UN number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2
Hazard label:	2.1
Classification code:	5F
Special Provisions:	190 327 344 625
Limited quantity:	1 L
Transport category:	2
Tunnel restriction code:	D
Other applicable information (land transport)	E0

Inland waterways transport (ADN)

14.1. UN number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2
Hazard label:	2.1
Classification code:	5F
Special Provisions:	190 327 344 625
Limited quantity:	1 L
Other applicable information (inland waterways transport)	E0

Marine transport (IMDG)

14.1. UN number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2.1
14.4. Packing group:	-
Hazard label:	2.1
Special Provisions:	63, 190, 277, 327, 344, 959
Limited quantity:	1000 ml
EmS:	F-D, S-U
Other applicable information (marine transport)	E0

Air transport (ICAO)

14.1. UN number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS, flammable
14.3. Transport hazard class(es):	2.1
Hazard label:	2.1
Special Provisions:	A145 A167 A802
Limited quantity Passenger:	30 kg G
IATA-packing instructions - Passenger:	203
IATA-max. quantity - Passenger:	75 kg
IATA-packing instructions - Cargo:	203
IATA-max. quantity - Cargo:	150 kg
Other applicable information (air transport)	Y203

14.5 Environmental hazards	ENVIRONMENTALLY HAZARDOUS: yes Danger releasing substance: Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane
14.6 Special precautions for user	Warning: Flammable gases.
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:	Not applicable

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15. Regulations

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

Reg. CE 1272/2008 (CLP)
Reg. CE 790/2009 (1° ATP CLP)
Reg. 1907/2006 (Reach)
Reg. UE 453/2010

1999/13/CE (VOC):

97 % (685,79 g/l)

More information:

To be observed: 850/2004/EC, 79/117/EEC, 689/2008/EC, 2008/47/EC

Workplace exposure limits:

Observe employment restrictions for young people.

Water hazard class (German reg.):

WGK 2 - water contaminating

15.2 Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

16. Other information

This MSDS was prepared in accordance to REACH 1907/2006/EC.

Relevant H hazard statements in point 3:

H hazard statements:

H220 Extremely flammable gas.
H222 Extremely flammable aerosol.
H225 Highly flammable liquid and vapour.
H229 Pressurised container: May burst if heated.
H280 Contains gas under pressure; may explode if heated.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H361f Suspected of damaging fertility.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Reviewed on: 09.03.2016