BRAKE CLEANER



SAFETY DATA SHEET

according to Regulation (EU) 2015/830

ISSUE DATE: 15.09.2014 REVISION DATE: 16.07.2020 SUPERSEDES DATE: 06.10.2017 VERSION: 4.1

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

1.1. Product identifier

Trade name	Brake Cleaner	
Product code	Ford Internal Ref.: 125782	
SDS Number	7717	
Type of product	Detergent	
Product use	Public use	

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

Relevant identified uses	Cleaner
Uses advised against	No additional information available.

1.3. Details of the supplier of the safety data sheet

Supplier	Distributor
Ford-Werke GmbH	Ford Motor Company Ltd.
Edsel-Ford-Str. 2-14	Parts Distribution Centre
50769 Cologne	Royal Oak Way South
Germany	NN11 8NT Daventry, Northants
+49 221 90-33333	United Kingdom
sdseu@ford.com	+44 1327 305 198

1.4. Emergency telephone number

+49 (0) 6132-84463 (GBK GmbH - 24/7)

2. SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008

Physical hazards	Aerosol, Category 1	H222;H229	Extremely flammable aerosol. Pressurised container: May burst if heated.
Health hazards	Skin corrosion/irritation, Category 2	H315	Causes skin irritation.
	Serious eye damage/eye irritation, Category 2	H319	Causes serious eye irritation.
	Specific target organ toxicity — Single exposure, Category 3, Narcosis	H336	May cause drowsiness or dizziness.
	Aspiration hazard, Category 1	H304	May be fatal if swallowed and enters airways.
Environmental hazards	Hazardous to the aquatic environment — Chronic Hazard, Category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008

Hazard pictograms



Signal word	Danger
Contains	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane; acetone; 1-methoxy-2-propanol ; Pentane
Hazard statements	
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.
Precautionary statements	
General	
P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
Prevention	
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.
Response	
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage	
P405	Store locked up.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 $^\circ\text{C}/122\ ^\circ\text{F}$.
Disposal	
P501	Dispose of contents/container to an approved waste disposal plant.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII. This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.

3. SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical name	CAS- No EC- No Index No RRN	%	Classification according to Regulation (EC) No. 1272/2008	Notes
Hydrocarbons, C6-C7, n- alkanes, isoalkanes, cyclics, <5% n-hexane	921-024-6 01-2119475514-35- XXXX	25 - < 50	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	
acetone	67-64-1 200-662-2 606-001-00-8 01-2119471330-49- XXXX	25 - < 50	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	substance with a Community workplace exposure limit

Chemical name	CAS- No EC- No Index No RRN	%	Classification according to Regulation (EC) No. 1272/2008	Notes
1-methoxy-2-propanol	107-98-2 203-539-1 603-064-00-3 01-2119457435-35- XXXX	10 - < 20	Flam. Liq. 3, H226 STOT SE 3, H336	substance with a Community workplace exposure limit substance with a Community workplace exposure limit
Pentane	109-66-0 203-692-4 601-006-00-1 01-2119457435-35- XXXX	10 - < 20	Flam. Liq. 1, H224 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	substance with a Community workplace exposure limit (Note C)
Carbon dioxide	124-38-9 204-696-9	3 - < 10	Press. Gas (Liq.), H280	substance with a Community workplace exposure limit substance with a Community workplace exposure limit

Note C : Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers. Full text of H-statements: see section 16

4. SECTION 4: First aid measures

4.1. Description of first aid measures

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General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
Inhalation	Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention.
Skin contact:	Wash skin with plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Get medical advice/attention.
Eyes contact	Remove contact lenses, if present and easy to do. Continue rinsing. Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). If eye irritation persists: Get medical advice/attention.
Ingestion	Call a poison center or a doctor if you feel unwell. Do not induce vomiting. Rinse mouth thoroughly. Get immediate medical advice/attention.

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

Symptoms/effects:	May cause drowsiness or dizziness.
Symptoms/effects after skin contact	Irritation.
Symptoms/effects after eye contact	Eye irritation.

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

Treat symptomatically.

5. SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard	Extremely flammable aerosol.
Explosion hazard	Pressurised container: May burst if heated.

	Hazardous combustion products	During fire, gases hazardous to health may be formed. Carbon oxides (CO, CO2).
5.3.	Advice for firefighters	
	Firefighting instructions	Move containers from fire area if it can be done without personal risk. Use standard firefighting procedures and consider the hazards of other involved materials.
	Protection during firefighting	Do not attempt to take action without suitable protective equipment. Self- contained breathing apparatus. Complete protective clothing.

6. SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

	For non-emergency personnel	
	Protective equipment	Wear appropriate protective equipment and clothing during clean-up. Use personal protection recommended in Section 8 of the MSDS.
	Emergency procedures	Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing dust/fume/gas/mist/vapours/spray. Evacuate unnecessary personnel. Avoid contact with skin, eyes and clothing. Local authorities should be advised if significant spillages cannot be contained. Wear appropriate protective equipment and clothing during clean-up.
	For emergency responders	
	Protective equipment	Do not attempt to take action without suitable protective equipment. Wear recommended personal protective equipment. For personal protection, see section 8 of the SDS.
	Emergency procedures	Keep unnecessary personnel away. Ventilate area.
6.2.	Environmental precautions	Avoid release to the environment. Avoid discharge into drains, water courses or onto the ground. Prevent further leakage or spillage if safe to do so. Inform appropriate managerial or supervisory personnel of all environmental releases.

6.3. Methods and material for containment and cleaning up

	For containment	Collect spillage. Stop leak without risks if possible. Move containers from fire area if it can be done without personal risk.
	Methods for cleaning up	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small spills: Take up liquid spill into absorbent material. Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use.
	Other information	Dispose of materials or solid residues at an authorized site.
6.4.	Reference to other sections	For further information refer to section 8: "Exposure controls/personal protection". For disposal of residues refer to section 13 :" Disposal

considerations".

7. SECTION 7: Handling and storage

7.1. Precautions for safe handling Precautions for safe handling

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Wear personal protective equipment. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid release to the environment.

	Hygiene measures	Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Observe good industrial hygiene practices.
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7.2. Conditions for safe storage, including any incompatibilities

Technical measures	Ensure adequate ventilation, especially in confined areas.
Storage conditions	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Keep container tightly closed. Keep cool. Store in a dry, cool and well-ventilated place.
Specific end use(s)	Cleaner.

8. SECTION 8: Exposure controls/personal protection

8.1. Control parameters

7.3.

Regulation	Substance	Туре	Value
COMMISSION	acetone (67-64-1)	IOELV TWA	1210 mg/m ³
DIRECTIVE	Acetone	IOELV TWA	500 ppm
2000/39/EC	1-methoxy-2-propanol (107-	IOELV TWA	375 mg/m³
	98-2)	IOELV TWA	100 ppm
	1-Methoxypropanol-2	IOELV STEL	568 mg/m³
		IOELV STEL	150 ppm
		Notes	Skin
COMMISSION	Carbon dioxide (124-38-9)	IOELV TWA	9000 mg/m³
DIRECTIVE	Carbon dioxide	IOELV TWA	5000 ppm
2006/15/EC	Pentane (109-66-0)	IOELV TWA	3000 mg/m ³
	Pentane	IOELV TWA	1000 ppm
United Kingdom			
Regulation	Substance	Туре	Value
EH40. HSE	acetone (67-64-1)	WEL TWA	1210 mg/m ³
	Acetone	WEL TWA	500 ppm
		WEL STEL	3620 mg/m ³
		WEL STEL	1500 ppm
	1-methoxy-2-propanol (107-	WEL TWA	375 mg/m ³
	98-2)	WEL TWA	100 ppm
	1-Methoxypropan-2-ol	WEL STEL	560 mg/m ³
		WEL STEL	150 ppm
		Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
	Carbon dioxide (124-38-9)	WEL TWA	9150 mg/m³
	Carbon dioxide	WEL TWA	5000 ppm
		WEL STEL	27400 mg/m³
		WEL STEL	15000 ppm
	Pentane (109-66-0)	WEL TWA	1800 mg/m³
	Pentane		

	Туре	Route	Value	Form
Hydrocarbons, C6-C7, n-	Worker	Dermal	773 mg/kg bodyweight/day	Long-term - systemic effect
alkanes, isoalkanes, cyclics,		Inhalation	2035 mg/m ³	Long-term - systemic effect
<5% n-hexane	Consumer	Oral	699 mg/kg bodyweight/day	Long-term - systemic effect
		Inhalation	608 mg/m³	Long-term - systemic effect
		Dermal	699 mg/kg bodyweight/day	Long-term - systemic effect
acetone (67-64-1)	Worker	Inhalation	2420 mg/m³	Acute - local effects
		Dermal	186 mg/kg bodyweight/day	Long-term - systemic effect
		Inhalation	1210 mg/m ³	Long-term - systemic effect
	Consumer	Oral	62 mg/kg bodyweight/day	Long-term - systemic effect
		Inhalation	200 mg/m ³	Long-term - systemic effect
		Dermal	62 mg/kg bodyweight/day	Long-term - systemic effect
1-methoxy-2-propanol (107-	Worker	Inhalation	553.5 mg/m³	Acute - systemic effects
98-2)		Inhalation	553.5 mg/m³	Acute - local effects
		Dermal	183 mg/kg bodyweight/day	Long-term - systemic effect
		Inhalation	369 mg/m ³	Long-term - systemic effect
	Consumer	Oral	33 mg/kg bodyweight/day	Long-term - systemic effect
		Inhalation	43.9 mg/m ³	Long-term - systemic effect
		Dermal	78 mg/kg bodyweight/day	Long-term - systemic effect
Pentane (109-66-0)	Worker	Dermal	432 mg/kg bodyweight/day	Long-term - systemic effect
		Inhalation	3000 mg/m ³	Long-term - systemic effect
	Consumer	Oral	214 mg/kg bodyweight/day	Long-term - systemic effect
	Concarnor			
	Concantor	Inhalation	643 mg/m ³	Long-term - systemic effect
	Concurren	Inhalation Dermal	643 mg/m³ 214 mg/kg bodyweight/day	Long-term - systemic effect Long-term - systemic effect
PNEC: Predicted no effect o			•	
PNEC: Predicted no effect of No data available Components			•	
No data available Components	concentration Type	Dermal Route	214 mg/kg bodyweight/day Value	Long-term - systemic effect
No data available	concentration	Dermal Route Freshwater	214 mg/kg bodyweight/day Value 10.6 mg/l	Long-term - systemic effect
No data available Components	concentration Type	Dermal Route	214 mg/kg bodyweight/day Value 10.6 mg/l 1.06 mg/l	Long-term - systemic effect
No data available Components	concentration Type	Dermal Route Freshwater Seawater	214 mg/kg bodyweight/day Value 10.6 mg/l 1.06 mg/l 21 mg/l	Long-term - systemic effect
No data available Components	concentration Type	Dermal Route Freshwater Seawater Freshwater	214 mg/kg bodyweight/day Value 10.6 mg/l 1.06 mg/l 21 mg/l 30.4 mg/kg dwt	Long-term - systemic effect Form Intermittent release
No data available Components	concentration Type	Dermal Route Freshwater Seawater Freshwater sediment	214 mg/kg bodyweight/day Value 10.6 mg/l 1.06 mg/l 21 mg/l 30.4 mg/kg dwt 3.04 mg/kg dwt	Long-term - systemic effect Form Intermittent release Freshwater
No data available Components	concentration Type	Dermal Route Freshwater Seawater Freshwater sediment sediment	214 mg/kg bodyweight/day Value 10.6 mg/l 1.06 mg/l 21 mg/l 30.4 mg/kg dwt	Long-term - systemic effect Form Intermittent release Freshwater
No data available <u>Components</u> acetone (67-64-1) 1-methoxy-2-propanol (107-	concentration Type Not applicable	Dermal Route Freshwater Seawater Freshwater sediment sediment Soil	214 mg/kg bodyweight/day Value 10.6 mg/l 1.06 mg/l 21 mg/l 30.4 mg/kg dwt 3.04 mg/kg dwt 29.5 mg/kg dwt	Long-term - systemic effect Form Intermittent release Freshwater
No data available Components acetone (67-64-1)	concentration Type Not applicable	Dermal Route Freshwater Seawater Freshwater sediment sediment Soil STP	214 mg/kg bodyweight/day Value 10.6 mg/l 1.06 mg/l 21 mg/l 30.4 mg/kg dwt 3.04 mg/kg dwt 29.5 mg/kg dwt 100 mg/l	Long-term - systemic effect Form Intermittent release Freshwater
No data available <u>Components</u> acetone (67-64-1) 1-methoxy-2-propanol (107-	concentration Type Not applicable	Dermal Route Freshwater Seawater Freshwater sediment sediment Soil STP Freshwater	214 mg/kg bodyweight/day Value 10.6 mg/l 1.06 mg/l 21 mg/l 30.4 mg/kg dwt 3.04 mg/kg dwt 29.5 mg/kg dwt 100 mg/l 10 mg/l	Long-term - systemic effect Form Intermittent release Freshwater
No data available <u>Components</u> acetone (67-64-1) 1-methoxy-2-propanol (107-	concentration Type Not applicable	Dermal Route Freshwater Seawater Freshwater sediment Soil STP Freshwater Seawater	214 mg/kg bodyweight/day Value 10.6 mg/l 1.06 mg/l 21 mg/l 30.4 mg/kg dwt 3.04 mg/kg dwt 29.5 mg/kg dwt 100 mg/l 10 mg/l 1 mg/l	Long-term - systemic effect Form Intermittent release Freshwater Seawater
No data available <u>Components</u> acetone (67-64-1) 1-methoxy-2-propanol (107-	concentration Type Not applicable	Dermal Route Freshwater Seawater Freshwater sediment Soil STP Freshwater Seawater Freshwater	214 mg/kg bodyweight/day Value 10.6 mg/l 1.06 mg/l 21 mg/l 30.4 mg/kg dwt 3.04 mg/kg dwt 29.5 mg/kg dwt 100 mg/l 10 mg/l 10 mg/l 10 mg/l	Long-term - systemic effect Form Intermittent release Freshwater Seawater Intermittent release
No data available <u>Components</u> acetone (67-64-1) 1-methoxy-2-propanol (107-	concentration Type Not applicable	Dermal Route Freshwater Seawater Freshwater sediment Soil STP Freshwater Seawater Freshwater sediment	214 mg/kg bodyweight/day Value 10.6 mg/l 1.06 mg/l 21 mg/l 30.4 mg/kg dwt 3.04 mg/kg dwt 29.5 mg/kg dwt 100 mg/l 1 mg/l 100 mg/l 52.3 mg/kg dwt	Long-term - systemic effect Form Intermittent release Freshwater Seawater Intermittent release Freshwater
No data available <u>Components</u> acetone (67-64-1) 1-methoxy-2-propanol (107-	concentration Type Not applicable	Dermal Route Freshwater Seawater Freshwater sediment Soil STP Freshwater Seawater Freshwater sediment sediment	214 mg/kg bodyweight/day Value 10.6 mg/l 1.06 mg/l 21 mg/l 30.4 mg/kg dwt 3.04 mg/kg dwt 29.5 mg/kg dwt 100 mg/l 1 mg/l 100 mg/l 52.3 mg/kg dwt 5.2 mg/kg dwt	Long-term - systemic effect Form Intermittent release Freshwater Seawater Intermittent release Freshwater
No data available <u>Components</u> acetone (67-64-1) 1-methoxy-2-propanol (107-	concentration Type Not applicable	Dermal Route Freshwater Seawater Freshwater sediment Soil STP Freshwater Seawater Freshwater sediment sediment Soil	214 mg/kg bodyweight/day Value 10.6 mg/l 1.06 mg/l 21 mg/l 30.4 mg/kg dwt 3.04 mg/kg dwt 3.04 mg/kg dwt 29.5 mg/kg dwt 100 mg/l 1 mg/l 10 mg/l 52.3 mg/kg dwt 5.2 mg/kg dwt 4.59 mg/kg dwt	Long-term - systemic effect Form Intermittent release Freshwater Seawater Intermittent release Freshwater
No data available <u>Components</u> acetone (67-64-1) 1-methoxy-2-propanol (107- 98-2)	concentration Type Not applicable	Dermal Route Freshwater Seawater Freshwater sediment Soil STP Freshwater Freshwater Freshwater sediment sediment Soil STP	214 mg/kg bodyweight/day Value 10.6 mg/l 1.06 mg/l 21 mg/l 30.4 mg/kg dwt 3.04 mg/kg dwt 29.5 mg/kg dwt 100 mg/l 10 mg/l 10 mg/l 52.3 mg/kg dwt 5.2 mg/kg dwt 4.59 mg/kg dwt 100 mg/l	Long-term - systemic effect Form Intermittent release Freshwater Seawater Intermittent release Freshwater
No data available <u>Components</u> acetone (67-64-1) 1-methoxy-2-propanol (107- 98-2)	concentration Type Not applicable	Dermal Route Freshwater Seawater Freshwater sediment Soil STP Freshwater Seawater Freshwater sediment sediment Soil STP Freshwater Freshwater	214 mg/kg bodyweight/day Value 10.6 mg/l 1.06 mg/l 21 mg/l 30.4 mg/kg dwt 3.04 mg/kg dwt 29.5 mg/kg dwt 100 mg/l 1 mg/l 10 mg/l 52.3 mg/kg dwt 5.2 mg/kg dwt 4.59 mg/kg dwt 100 mg/l 230 μg/L	Long-term - systemic effect Form Intermittent release Freshwater Seawater Intermittent release Freshwater
No data available <u>Components</u> acetone (67-64-1) 1-methoxy-2-propanol (107- 98-2)	concentration Type Not applicable	Dermal Route Freshwater Seawater Freshwater sediment Soil STP Freshwater Seawater Freshwater sediment Soil STP Freshwater Seawater Freshwater Seawater	214 mg/kg bodyweight/day Value 10.6 mg/l 1.06 mg/l 21 mg/l 30.4 mg/kg dwt 3.04 mg/kg dwt 29.5 mg/kg dwt 100 mg/l 10 mg/l 10 mg/l 52.3 mg/kg dwt 5.2 mg/kg dwt 4.59 mg/kg dwt 100 mg/l 230 µg/L 230 µg/L	Long-term - systemic effect Form Intermittent release Freshwater Seawater Intermittent release Freshwater Seawater Seawater

			Soil STP	0.55 mg/kg dwt 3600 μg/L		
8.2.	Exposure controls	6				
	Appropriate engined		Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the protective equipment			
	Individual protection	n measures, such as p	ersonal protect	ive equipment (PPE)		
	Eye protection		Safety glasse	s with side shields. EN 166.		
	Skin protection					
	Hand protection		The recommendation is only valid for the supplied product and the stated application. Special working conditions, like heat or mechanical strain, which deviate from the test conditions, can reduce the protective effect provided by the recommended glove. Protective gloves. EN 374			
	Material	Material Permeation		um) Comments		
	Butyl rubber 30 - 59 min In case of splash 10 - 29 minutes contact: Nitrile rubber (NBR) Other protective measures Respiratory protection		0.7	Glove recommendation: Butoject® 898 (Kächele-Cama GmbH, source of supply see www.kcl.de) or comparable product.		
			0.4	Glove recommendation: Camatril Velours® 730 (Kächele- Cama GmbH, source of supply see www.kcl.de) or comparable product.		
			Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.			
			In case of insufficient ventilation, wear suitable respiratory equipment. If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn			
	Skin and body prote	ection	Wear suitable protective clothing,Long sleeved protective clothing,EN 14605,EN ISO 13982			
	Thermal hazard pro	tection	Wear appropr	ate thermal protective clothing, when necessary.		
	Environmental exposure controls		Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases.			

9. SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Aerosol.
Colour	Colourless.
Odour	Characteristic.
Odour threshold	No data available
рН	No data available
Relative evaporation rate (butylacetate=1)	No data available
Melting point	Not applicable
Freezing point	No data available
Boiling point	-78.5 °C
Flash point	-35 °C
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid, gas)	Extremely flammable aerosol
Vapour pressure	573 hPa @ 20°C
Relative vapour density at 20 °C	No data available

	Relative density	No data available
	Density	0.75 g/cm³ @ 20°C
	Solubility	Moderately soluble in water.
	Log Pow	No data available
	Viscosity, kinematic	No data available
	Viscosity, dynamic	No data available
	Explosive properties	Pressurised container: May burst if heated.
	Oxidising properties	No data available
	Lower explosive limit (LEL)	0.8 vol %
	Upper explosive limit (UEL)	≈ 20 vol %
9.2.	Other information	
5.2.		
	VOC (EU)	95 %
10.	SECTION 10: Stability and reactivit	ty
10.1.	Reactivity	Extremely flammable aerosol. Pressurised container: May burst if heated. The product is non-reactive under normal conditions of use, storage and transport.
10.2.	Chemical stability	Stable under normal conditions.
10.3.	Possibility of hazardous reactions	No dangerous reactions known under normal conditions of use.
10.4.	Conditions to avoid	Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.
10.5.	Incompatible materials	Acids. Strong oxidizing agents.
10.6.	Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	Based on available data, the classification criteria are not met.
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Causes serious eye irritation.
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met
Carcinogenicity	Based on available data, the classification criteria are not met
Reproductive toxicity	Based on available data, the classification criteria are not met
STOT-single exposure	May cause drowsiness or dizziness.
STOT-repeated exposure	Based on available data, the classification criteria are not met
Aspiration hazard	May be fatal if swallowed and enters airways.

12. SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	Toxic to a	Toxic to aquatic life with long lasting effects.					
Hazardous to the aqua	short-term (ac	ute)					
Substance / Product	Trophic level	Species	Туре	Value	Duration	Remarks	
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	algae	Pseudokirc hnerella subcapitat a	EL50	30 mg/l	72 h		

		crustacea	Daphnia magna	EC50	3 mg/l	48 h		
		Fish	Oncorhync hus mykiss (Rainbow trout)		11,4 mg/l	96 h		
	Pentane (109-66-0)	Fish	Oncorhync hus mykiss (Rainbow trout)		4.26 mg/l	96h	(OECD 203 method)	
12.2.	Persistence and deg	gradability						
	Hydrocarbons, C6-C7	, n-alkanes, isoalka	nes, cyclics,	<5% n-he	exane			
	Persistence and degra	adability	Readily b	iodegrada	ble.			
	Biodegradation		98 % (OE	CD 301F	method)			
	Pentane (109-66-0)							
	Persistence and degra	adability	Readily b	iodegrada	ble.			
12.3.	Bioaccumulative po	tential						
	Pentane (109-66-0)							
	Log Kow		3.45					
12.4.	Mobility in soil							
	No additional information	n available.						
12.5.	Results of PBT and	vPvB assessmen	ıt					
	Brake Cleaner							
	This substance/mixture	does not meet the P	BT criteria of	REACH r	egulation, anne	ex XIII.		
	This substance/mixture	does not meet the v	PvB criteria o	f REACH	regulation, ann	ex XIII.		
12.6.	Other adverse effec	ts						
	Other adverse effects		ozone cre		ential, endocrin		zone depletion, photochemical global warming potential) are	
13.	SECTION 13: Disp	osal considerat	ions					
13.1.	Waste treatment me	ethods						
	Regional legislation (v	vaste)	its contai	ner must b		in a safe man	duct residues. This material and ner (see: Disposal instructions).	
	Waste treatment meth	ods	Collect and reclaim or dispose in closed containers at licensed waste disposal site. Do not contaminate ponds, waterways or ditches with chemical or used container. Do not allow to enter drains or water courses. Dispose of contents/container in accordance with licensed collector's sorting instructions.					
	Product/Packaging dia recommendations	sposal	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken for recycling, recovery or waste in accordance with local regulation.					
	Additional information European List of Wast		Dispose i	n accorda	nce with all app	olicable regula	ations.	
	Luiopean List UN Was				ould be assign			
	45 04 40*			-	cer and the wa	-		
	15 01 10*			g containir Is substan	ng residues of o ces	or contaminat	ed by	
	16 05 04*			pressure c is substan	containers (incl ces	uding halons)	containing	

14. SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1.	UN number	
	UN-No. (ADR)	1950
	UN-No. (IMDG)	1950
	UN-No. (IATA)	1950
	UN-No. (ADN)	1950
	UN-No. (RID)	1950
14.2.	UN proper shipping name	
	Proper Shipping Name (ADR)	AEROSOLS
	Proper Shipping Name (IMDG)	AEROSOLS
	Proper Shipping Name (IATA)	Aerosols, flammable
	Proper Shipping Name (ADN)	AEROSOLS
	Proper Shipping Name (RID)	AEROSOLS
14.3.	Transport hazard class(es)	
	ADR	
	Transport hazard class(es) (ADR)	2.1
	Danger labels (ADR)	2.1
	IMDG	
	Transport hazard class(es) (IMDG)	2.1
	Danger labels (IMDG)	2.1
	•	
	ΙΑΤΑ	
	Transport hazard class(es) (IATA)	2.1
	Hazard labels (IATA)	2.1
	ADN	. .
	Transport hazard class(es) (ADN)	2.1
	Danger labels (ADN)	2.1
	RID	
	Transport hazard class(es) (RID)	2.1
	Danger labels (RID)	2.1
14.4.	Packing group	
14.4.	Packing group (ADR)	Natappliable
	Packing group (IMDG)	Not applicable Not applicable
	Packing group (IATA)	Not applicable
	Packing group (ADN)	Not applicable
	Packing group (RID)	Not applicable
445		· · · · b.b. · · · · ·
14.5.	Environmental hazards	
	Dangerous for the environment	Yes
	Marine pollutant	Yes
	Other information	No supplementary information available.

14.6. Special precautions for user

Overland transport	
Classification code (ADR)	5F
Special provisions (ADR)	190, 327, 344, 625
Limited quantities (ADR)	11
Packing instructions (ADR)	P207
Tunnel restriction code (ADR)	D
Transport by sea	
Special provisions (IMDG)	63, 190, 277, 327, 344, 959
Limited quantities (IMDG)	SP277
Packing instructions (IMDG)	P207, LP02
EmS-No. (Fire)	F-D
EmS-No. (Spillage)	S-U
Stowage category (IMDG)	None
Air transport	
PCA Excepted quantities (IATA)	E0
PCA Limited quantities (IATA)	Y203
PCA limited quantity max net quantity (IATA)	30kgG
PCA packing instructions (IATA)	203
PCA max net quantity (IATA)	75kg
CAO packing instructions (IATA)	203
CAO max net quantity (IATA)	150kg
Special provisions (IATA)	A145, A167, A802
ERG code (IATA)	10L
Inland waterway transport	
Classification code (ADN)	5F
Special provisions (ADN)	190, 327, 344, 625
Limited quantities (ADN)	1L
Rail transport	
Special provisions (RID)	190, 327, 344, 625
Limited quantities (RID)	1L
Packing instructions (RID)	P207, LP200
Hazard identification number (RID)	23

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

Not applicable

15. SECTION 15: Regulatory information

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

EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006

•	•	
Brake Cleaner ; Hydrocarbons, C6-C7, n-		mixtures fulfilling the criteria for any of the following hazard
alkanes, isoalkanes, cyclics, <5% n-hexane ;		es set out in Annex I to Regulation (EC) No 1272/2008:
acetone ; 1-methoxy-2-propanol ; Pentane		to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 2.14 categories 1 and 2, 2.15 types A to F
Brake Cleaner ; Hydrocarbons, C6-C7, n- alkanes, isoalkanes, cyclics, <5% n-hexane ; acetone ; 1-methoxy-2-propanol ; Pentane	classes or categori Hazard classes 3.1	mixtures fulfilling the criteria for any of the following hazard es set out in Annex I to Regulation (EC) No 1272/2008: to 3.6, 3.7 adverse effects on sexual function and fertility or 8 effects other than narcotic effects, 3.9 and 3.10

Brake Cleaner ; Hydrocarbons, C6-C7, n- alkanes, isoalkanes, cyclics, <5% n-hexar Pentane	3(c) Substances or e; classes or categori Hazard class 4.1	mixtures fulfilling the criteria for any of the following hazard es set out in Annex I to Regulation (EC) No 1272/2008:
Hydrocarbons, C6-C7, n-alkanes, isoalkar cyclics, <5% n-hexane ; acetone ; 1-metho 2-propanol ; Pentane	oxy- categories 1, 2 or 3 which, in contact w pyrophoric liquids of	assified as flammable gases category 1 or 2, flammable liquids 3, flammable solids category 1 or 2, substances and mixtures with water, emit flammable gases, category 1, 2 or 3, category 1 or pyrophoric solids category 1, regardless of ar in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or
Contains no substance on the REACH car	ndidate list	
Contains no REACH Annex XIV substance	es	
VOC (EU)		95 %
Other information, restriction and proh	ibition regulations	Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work, as amended. Directive 94/33/EC on the protection of young people at work, as amended. Directive 92/85/EEC on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding as amended. For details, refer to section 3 and 8.
REGULATION (EC) No. 648/2004 on det	ergents	
Component		%
aliphatic hydrocarbons		≥30%
Seveso Information		P3a FLAMMABLE AEROSOLS 'Flammable' aerosols Category 1 or 2, containing flammable gases Category 1 or 2 or flammable liquids Category 1
National regulations		
No additional information available.		
Chemical safety assessment		
No chemical safety assessment has been	carried out	
SECTION 16: Other information		
Indication of changes		
Section 1 - Section 16.		
Abbreviations and acronyms		
ADN Europear Waterway		the International Carriage of Dangerous Goods by Inland
ADR European	Agreement concerning	the International Carriage of Dangerous Goods by Road

15.2.

16.

Section 1 - Section 16.				
Abbreviations and acronyms				
ADN	European Agreement concerning the Inter Waterways	national Carriage of Dangerous Goods by Inlar	ıd	
ADR	European Agreement concerning the Inter	national Carriage of Dangerous Goods by Road	b	
AGW	Occupational exposure limit value			
ATE	Acute Toxicity Estimate according to Regu	lation (EC) 1272/2008 (CLP)		
BAM	Federal Institute for Materials Research ar	nd Testing, Germany		
BAT	Maximum permissible concentration of biological working substances.			
BCF	Bio-concentration factor.			
BLV	Biological limit values			
BLV	Biological limit values (BGW, Austria)			
BMGV	Biological Monitoring Guidance Value (EH40,UK).			
BOD5	Biochemical oxygen demand within 5 days			
BOD	Biochemical oxygen demand			
bw	Body weight.			
calcd.	Calculated			
CAS	Chemical Abstract Service.			
de: Ford Internal Ref.: 125782	GB - en	Revision date: 7/16/2020	12/1	

CEN	European Committee for Standardization
CESIO	European Committee on Organic Surfactants and their Intermediates.
COD	Chemical oxygen demand
CLP	Classification, Labeling and Packaging REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures.
CMR	Carcinogenic, Mutagenic or Reproduction Toxic Substances
CSA	Chemical safety assessment
CSR	Chemical Safety Report.
DMEL	Derived Minimum Effect Level.
DNEL	Derived no effect level
EAC	European waste catalogue
EC	European community
EC50	Effective concentration
EINECS	European Inventory of Existing Commercial Chemical Substances.
ELINCS	European List of Notified Chemical Substances.
EN	European norm.
ERC	ERC (Environmental Release category)
EU	European Union
GLP	Good Laboratory Practice.
GHS	Globally Harmonized System of Classification and Labeling of Chemicals.
GW/VL	Occupational exposure limit value.
GW-kw/VL-cd	Occupational exposure limit value - short term.
GW-M/VL-M	Occupational exposure limit value – "Ceiling".
ΙΑΤΑ	International Air Transport Association
IBC code	International Bulk Chemical (Code) (International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk).
ICAO	International Civil Aviation Organization
IC50	Inhibition Concentration 50%.
IECSC	Inventory of Existing Chemical Substances in China.
IMDG	International Maritime Dangerous Goods
ISO	International Standards Organization.
IUPAC	International Union of Pure and Applied Chemistry
LC50	Lethal Concentration 50%.
LCLo	Lowest published lethal concentration.
LD50	Lethal Dose 50%.
LOAEL	Lowest Observed Adverse Effect Level
LOEC	Lowest observable effect concentration.
LOEL	Lowest observable effect level.
LQ	Limited quantities
TRK-Kzw	Threshold limit value - Short-term exposure limit / Technical reference concentration - short- time value, Austria.
MAK-Mow	Maximum allowable workplace concentration – instantaneous value, Austria.
MAK-Tmw, TRK-Tmw	Maximum allowable workplace concentration – daily mean value / Technical standard concentration – daily mean value, Austria.
MAK	Threshold limit values Germany.
MARPOL	International Convention for the Prevention of Pollution from Ships.
NOAEC	No-Observed Adverse Effect Concentration

NOAEL	No-Observed Adverse Effect Level		
NOEC	No-Observed Effect Concentration		
NOEL	no-observed-effect level		
OECD	Organisation for Economic Co-operation and Development		
OEL	Occupational Exposure Limits		
PBT	Persistent Bioaccumulative Toxic		
PC (Chemical product category)	PC (Chemical product category)		
PNEC	Predicted No-Effect Concentration		
POCP	Photochemical ozone creation potential.		
POP	Persistent Organic Pollutants		
PPE	Personal protective equipment		
Process category	Process category		
REACH	Registration, Evaluation and Authorization of Chemicals (REGULATION (EC) No 1907/2006 concerning Registration, Evaluation Authorization and Restriction of Chemicals).		
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail		
SCL	Specific concentration limit.		
STEL	Short-term Exposure Limit		
STP	Sewage treatment plant		
SU (Sector of use)	SU (Sector of use)		
SVHC	Substance of Very High Concern.		
TLV	Threshold Limit Value		
TRGS	Technical Rules for Hazardous Substances (German Standard).		
TWA	Time Weighted Average		
UVCB	Substances of Unknown or Variable composition, Complex reaction products or Biological materials		
VbF	Ordinance on Flammable Liquids, Austria		
VOC	Volatile organic compounds		
vPvB	Very Persistent and Very Bioaccumulative		
WEL-TWA	Workplace Exposure Limit-Long term exposure limit (8-hour TWA(=time weighted average)reference period).		
WEL-STEL	Workplace Exposure Limit-Short term exposure limit (15-minute reference period).		
Data sources	REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.		
Training advice	Normal use of this product shall imply use in accordance with the instructions on the packaging		
Classification according to F (EC) No. 1272/2008			
Aerosol 1	H222;H229		
Skin Irrit. 2	H315		
Eye Irrit. 2	H319		
STOT SE 3	H336		
Asp. Tox. 1	H304		
Aquatic Chronic 2 H411			
Full text of H- and EUH-state	ments		

Aerosol 1	Aerosol, Category 1.		
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2.		
Asp. Tox. 1	Aspiration hazard, Category 1.		
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2.		
Flam. Liq. 1	Flammable liquids, Category 1.		
Flam. Liq. 2	Flammable liquids, Category 2.		
Flam. Liq. 3	Flammable liquids, Category 3.		
Press. Gas (Liq.)	Gases under pressure : Liquefied gas.		
Skin Irrit. 2	Skin corrosion/irritation, Category 2.		
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis.		
H222	Extremely flammable aerosol.		
H224	Extremely flammable liquid and vapour		
H225	Highly flammable liquid and vapour		
H226	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		
H411	Toxic to aquatic life with long lasting effects		
Classification and procedure	used to derive the classification for mixtures according to Regulation (EC) 1272/2008		

[CLP]			
Aerosol 1	H222;H229	On basis of test data	
Skin Irrit. 2	H315	Calculation method	
Eye Irrit. 2	H319	Calculation method	
STOT SE 3	H336	Calculation method	
Asp. Tox. 1	H304	Expert judgment	
Aquatic Chronic 2	H411	Calculation method	

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

Attachment to the Safety Data Sheet



Product Name:	Brake Cleaner	
Ford Int. Ref. No.:	125782	REVISION DATE: 16.07.2020

Involved Products:

Finiscode	Part number	
1 1781419	3U7J 2C410	
2 1 004 510	950X 19518	

ər 10 AB 8 AA Container Size: 500 ml 150 ml