Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Date of issue: 10/20/2016 Revision date: 10/20/2016 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product name : Non-Chlorinated Brake and Parts Cleaner

Product code : 322/323/324

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

Use of the substance/mixture : Automotive break and parts cleaner

1.3. Details of the supplier of the safety data sheet

Kleen-Flo Tumbler Industries Ltd.

75 Advance Blvd.

Brampton, Ont. L6T 4N1 - Canada

T (905) 793-4311

1.4. Emergency telephone number

Emergency number : CANUTEC (613) 996-6666

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS-CA)

Flam. Liq. 2 H225 Skin Irrit. 2 H315 Eye Irrit. 2A H319 STOT SE 3 H336 Asp. Tox. 1 H304

2.2. Label elements

GHS-CA labelling

Hazard pictograms (GHS-CA)



GHS02

GHS07



HS07



GHS08

Signal word (GHS-CA) : Danger

Hazard statements (GHS-CA) : H225 - Highly flammable liquid and vapour

H315 - Causes skin irritation H319 - Causes serious eye irritation H336 - May cause drowsiness or dizziness

H304 - May be fatal if swallowed and enters airways

Precautionary statements (GHS-CA) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

P240 - Ground/bond container and receiving equipment

P241 - Use explosion-proof electrical/ventilating/lighting equipment

P242 - Use only non-sparking tools

P243 - Take precautionary measures against static discharge
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
P264 - Wash hands, forearms and face thoroughly after handling

P271 - Use only outdoors or in a well-ventilated area

P280 - Wear protective gloves/protective clothing/eye protection/face protection P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor

P331 - Do NOT induce vomiting

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water

P362+P364 - Take off contaminated clothing and wash it before reuse P332+P313 - If skin irritation occurs: Get medical advice/attention

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P312 - Call a POISON CENTER or doctor if you feel unwell

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing

P337+P313 - If eye irritation persists: Get medical advice/attention

P233 - Keep container tightly closed

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P403+P235 - Store in a well-ventilated place. Keep cool

P405 - Store locked up

 $P501 - Dispose \ of \ contents/container \ in \ accordance \ with \ local/regional/national/international \ accordance \ with \ local/regional/national/intern$

regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
n-Heptane	(CAS No) 142-82-5	60-80
Isopropyl alcohol	(CAS No) 67-63-0	15-40

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or a doctor if you feel unwell.

First-aid measures after skin contact : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.

First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to

do, remove contact lenses, if worn. If irritation persists, get medical attention.

First-aid measures after ingestion : Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

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

Symptoms/injuries after inhalation : May cause respiratory tract irritation. May cause drowsiness or dizziness.

Symptoms/injuries after skin contact : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking

of the skin.

Symptoms/injuries after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and

tear production, with marked redness and swelling of the conjunctiva.

Symptoms/injuries after ingestion : May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and

cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

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

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2) or water spray.

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapour. Products of combustion may include, and are not limited

to: oxides of carbon and other unidentified organics. May release flammable gases.

Explosion hazard : May form flammable/explosive vapour-air mixture.

Reactivity : No dangerous reaction known under conditions of normal use.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers.

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory

protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Use special care to avoid static electric charges.

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6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment

: Eliminate all ignition sources if safe to do so. Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for cleaning up

: Scoop up material and place in a disposal container. Provide ventilation.

6.4. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed

: Handle empty containers with care because residual vapours are flammable.

Precautions for safe handling

: Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Avoid contact with skin and eyes. Avoid breathing dust / fume / gas / mist / vapours / spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Use only non-sparking tools. Use only outdoors or in a well-ventilated area.

Hygiene measures : Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures

Incompatible materials

: Proper grounding procedures to avoid static electricity should be followed.

Storage conditions

Keep out of the reach of children. Store away from direct sunlight or other heat sources. Store in a cool, dry, well ventilated place away from incompatible materials.

: Strong oxidizers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

n-Heptane (142-82-5)		
ACGIH	ACGIH TWA (ppm)	400 ppm
ACGIH	ACGIH STEL (ppm)	500 ppm
IDLH	US IDLH (ppm)	750 ppm
NIOSH	NIOSH REL (TWA) (mg/m³)	350 mg/m³
NIOSH	NIOSH REL (TWA) (ppm)	85 ppm
NIOSH	NIOSH REL (ceiling) (mg/m³)	1800 mg/m³
NIOSH	NIOSH REL (ceiling) (ppm)	440 ppm

Isopropyl alcohol (67-63-0)		
ACGIH	ACGIH TWA (ppm)	200 ppm
ACGIH	ACGIH STEL (ppm)	400 ppm
IDLH	US IDLH (ppm)	2000 ppm (10% LEL)
NIOSH	NIOSH REL (TWA) (mg/m³)	980 mg/m³
NIOSH	NIOSH REL (TWA) (ppm)	400 ppm
NIOSH	NIOSH REL (STEL) (mg/m³)	1225 mg/m³
NIOSH	NIOSH REL (STEL) (ppm)	500 ppm

8.2. Exposure controls

Appropriate engineering controls

: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

Hand protection

: Wear chemically resistant protective gloves.

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Eye protection : Wear approved eye (properly fitted dust- or splash-proof chemical safety goggles) / face (face

shield) protection.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection

must be based on known or anticipated exposure levels, the hazards of the product and the

safe working limits of the selected respirator.

Environmental exposure controls : Maintain levels below Community environmental protection thresholds.

Other information : Do not eat, smoke or drink where material is handled, processed or stored. Wash hands

carefully before eating or smoking. Handle according to established industrial hygiene and

safety practices.

: No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Clear
Colour : Colourless

Odour : Slight hydrocarbon
Odour threshold : No data available
pH : No data available
Melting point : No data available
Freezing point : No data available

Boiling point : 82.3 - 98 °C (180.4-208.4 °F)

Flash point : -4 °C (24.8 °F)
Relative evaporation rate (butylacetate=1) : No data available

Flammability (solid, gas) : Highly flammable liquid and vapour.

Vapour pressure : No data available Relative vapour density at 20 °C : No data available : No data available Relative density Density 0.7349 g/cm³ Solubility insoluble in water. Partition coefficient n-octanol/water : No data available Auto-ignition temperature No data available Decomposition temperature : No data available : No data available Viscosity, kinematic No data available Viscosity, dynamic **Explosive limits** : No data available Explosive properties No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Oxidising properties

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal storage conditions. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Heat. Incompatible materials. Open flame. Direct sunlight.

10.5. Incompatible materials

Strong oxidizers.

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10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon and other unidentified organics. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified.

Acute toxicity (dermal) : Not classified.

Acute toxicity (inhalation) : Not classified.

Non-Chlorinated Brake and Parts Cleaner	
LD50 oral rat	> 2000 mg/kg (Calculated Acute Toxicity Estimate)
LD50 dermal rabbit	> 2000 mg/kg (Calculated Acute Toxicity Estimate)
LC50 inhalation rat	> 20 mg/l/4h (Calculated Acute Toxicity Estimate)

n-Heptane (142-82-5)	
LD50 dermal rabbit	3000 mg/kg
LC50 inhalation rat	103 g/m³/4h

Isopropyl alcohol (67-63-0)	
LD50 oral rat	1870 mg/kg
LD50 dermal rabbit	4059 mg/kg
LC50 inhalation rat	72600 mg/m³/4h

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitization : Not classified.

Germ cell mutagenicity : Not classified.

Carcinogenicity : Not classified.

Isopropyl alcohol (67-63-0)		
	IARC group	3 - Not classifiable

Reproductive toxicity : Not classified.

STOT-single exposure : May cause drowsiness or dizziness.

STOT-repeated exposure : Not classified.

Aspiration hazard : May be fatal if swallowed and enters airways.

Symptoms/injuries after inhalation : May cause respiratory tract irritation. May cause drowsiness or dizziness.

Symptoms/injuries after skin contact : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking

of the skin.

Symptoms/injuries after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and

tear production, with marked redness and swelling of the conjunctiva.

Symptoms/injuries after ingestion : May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and

cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

n-Heptane (142-82-5)	
LC50 fish 1	375.0 mg/l (96 h - Cichlid fish)
Isopropyl alcohol (67-63-0)	
LC50 fish 1	9640 mg/l (96 h - Pimephales promelas [flow-through])
EC50 Daphnia 1	13299 mg/l (48 h - Daphnia magna)
LC50 fish 2	11130 mg/l (96 h - Pimephales promelas [static])

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12.2. Persistence and degradability

Non-Chlorinated Brake and Parts Cleaner	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Non-Chlorinated Brake and Parts Cleaner		
Bioaccumulative potential	Not established.	
n-Heptane (142-82-5)		
Partition coefficient n-octanol/water	4.66	
Isopropyl alcohol (67-63-0)		
Partition coefficient n-octanol/water	0.05 (at 25 °C)	

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming : No known effects from this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

Additional information : Handle empty containers with care because residual vapours are flammable.

SECTION 14: Transport information

Transportation of Dangerous Goods (TDG)

In accordance with TDG

UN-No. (TDG) : UN1993

Proper Shipping Name (TDG) : FLAMMABLE LIQUID, N.O.S. (Petroleum Distillate, Isopropanol)

TDG Primary Hazard Classes : Class 3 - Flammable Liquids

Packing group : II

Hazard labels (TDG) :



SECTION 15: Regulatory information

15.1. Federal regulations

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.

15.2. International regulations

No additional information available

SECTION 16: Other information

Revision of issue : 10/20/2016
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Other information : None.

Prepared by : Kleen-Flo Tumbler Ind. Ltd.

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