BERKEBILE BRAKE CLEANER B-3220

SAFETY DATA SHEET

OSHA HCS (29 CFR 1910.1200)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Chemical Name	Mixture
CAS No.	Mixture
Trade Name	BERLEBILE BRAKE CLEANER B-3220
Product Code	EN-4121

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

Identified Use(s)	Automotive maintenance product
Uses Advised Against	None
Company Identification	The Berkebile Oil Company INC. P.O. Box 715 Somerset, PA 15501
Telephone	(814) 443-1656
Fax	(814) 443-2873
E-Mail (competent person)	sds@sprayproducts.com

Emergency telephone number

Emergency Phone No.	**Transportation Emergency:** CHEMTREC 24 hr. 1-800-424-9300 / 1 (703) 527-3887 (Collect calls accepted)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

OSHA HCS (29 CFR 1910.1200) — Flam. Aerosol 1; Compressed dissolved gas; STOT SE 1; Repr. 2; STOT RE 2; Skin Irrit. 2; Eye Irrit. 2; Asp. Tox. 1

Label elements

Hazard Symbol

Signal word(s): **DANGER**

Hazard Statement(s):

Extremely flammable aerosol.

Contains gas under pressure; may explode if heated.

Causes damage to organs: Optic nerve, Central nervous system. May cause drowsiness or dizziness.

Suspected of damaging the unborn child.

May cause damage to organs through prolonged or repeated exposure: Inhalation - neuropsychological effects, auditory dysfunction and effects on colour vision.

Causes skin irritation. Causes serious eye irritation.

Repeated exposure may cause skin dryness or cracking.

May be harmful if swallowed and enters airways.

Precautionary Statement(s)	Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe mist/vapours/spray. Wear protective gloves/eye protection. Wash hands and exposed skin after use. Protect from sunlight and do not expose to temperatures exceeding 50 ºC/122 ºF. Keep out of reach of children.
Other hazards	None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	% wt. *	CAS No.	Hazard classification
Acetone	40-60	67-64-1	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336
Heptane, branched, cyclic and linear	10 - 30	426260-76-6	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336
Methanol	10-20	67-56-1	Flam. Liq. 2; H225 Acute Tox. 3; H301, H311, H331 STOT SE 1; H370
Toluene	5-15	108-88-3	Flam. Liq. 2; H225 Repr. 2; H361 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Asp. Tox. 1; H304 STOT SE 3; H336 STOT RE 2; H373 Aquatic Chronic 4; H412
Carbon dioxide	2-10	124-38-9	Compressed dissolved gas

Additional Information - None

* The exact percentage withheld as a trade secret in accordance with 29 CFR 1910.1200.

SECTION 4: FIRST AID MEASURES

Description of first aid measures

Inhalation	Move person to fresh air. If breathing is labored, administer oxygen. If symptoms develop, obtain medical attention.
Skin Contact	Wash affected skin with soap and water. If symptoms develop, obtain medical attention.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Ingestion	Do not give anything by mouth to an unconscious person. Seek medical treatment. Do NOT induce vomiting.
Most important symptoms and effects, both acute and delayed	May cause damage to organs: (Optic nerve, Central nervous system). May be harmful if swallowed and enters airways.
Indication of any immediate medical attention and special treatment needed	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

-Suitable Extinguishing Media	Extinguish with carbon dioxide, dry chemical, foam or water spray.
-Unsuitable Extinguishing Media	Do not use water jet.
Special hazards arising from the substance or mixture	Highly flammable vapor (flash point below 23°C).
Advice for fire-fighters	A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Keep containers cool by spraying with water if exposed to fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Take precautionary measures against static discharges. Avoid contact with skin and eyes. Avoid breathing vapors.
Environmental precautions	Prevent liquid entering sewers, basements and work pits.
Methods and material for containment and cleaning up	Cover spills with inert absorbent material. Transfer to a container for disposal or recovery.
Reference to other sections	None
Additional Information	None

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling	Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Avoid contact with skin and eyes. Use product in a well-ventilated area only. Avoid breathing spray.

Conditions for safe storage, including any incompatibilities

-Storage temperature	Keep in a cool, well ventilated place. Store at temperatures not exceeding 50 °C / 122 °F.
-Incompatible materials	This product should be stored away from sources of strong heat or oxidizing chemicals.
Specific end use(s)	Automotive maintenance product

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

SUBSTANCE.	CAS No.	(8hr TWA)		(STEL)		Note:
		PEL (OSHA)	TLV (ACGIH)	PEL (OSHA)	TLV (ACGIH)	
Acetone	67-64-1	1000	500	------	750	^NIC
Methanol	67-56-1	200 ppm	200 ppm	----	250 ppm	None
Toluene	108-88-3	200	20	300*	------	*10-min. Ceiling
Heptane, branched, cylic and linear	426260-76-6	500 ppm**	1500 mg/m^3	-----	-----	**n-heptane
Carbon dioxide	124-38-9		5000 ppm		30,000 ppm	

^NIC = Notice of Intended Changes (ACGIH®);

Recommended monitoring method

NIOSH 1300 (Ketones I); NIOSH 2000 (Methanol); NIOSH 1500 (hydrocarbons, B.P. 36 - 126 ºC) ; NIOSH 1501 (Hydrocarbons, Aromatic); NIOSH 1459 (Methyl Acetate)

Exposure controls

Appropriate engineering controls

Provide adequate ventilation to ensure that the occupational exposure limit is not exceeded.

Personal protection equipment

Eye/face protection

Wear protective eyewear (goggles, face shield, or safety glasses).

Skin protection (Hand protection/ Other)

Wear suitable gloves if prolonged skin contact is likely (Butyl rubber). Check with protective equipment manufacturer's data.

Respiratory protection

Normally no personal respiratory protection is necessary. In case of insufficient ventilation, wear suitable respiratory equipment. Check with protective equipment manufacturer's data.

Thermal hazards

Not normally required. Use gloves with insulation for thermal protection, when needed.

Environmental Exposure Controls

None known

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid
Color.	Colorless
Odor	Acetone-like
Odor Threshold (ppm)	Not available
pH (Value)	Not available
Melting Point (°C) / Freezing Point (°C)	Not available
Boiling point/boiling range (°C):	56 (Acetone)
Flash Point (°C)	-17 (Acetone)
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable
Explosive Limit Ranges	2.5% - 12.8% v/v (Acetone)
Vapor pressure (Pascal)	2.4 x 10^4 (Acetone)
Vapor Density (Air=1)	Not available
Density (g/ml)	Not available
Solubility (Water)	Not available

Solubility (Other)	Not available
Partition Coefficient (n-Octanol/water)	Not available
Auto Ignition Point (°C)	465 (Acetone)
Decomposition Temperature (°C)	Not available
Kinematic Viscosity	<20
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Other information	Not available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions.
Chemical stability	Stable.
Possibility of hazardous reactions	None anticipated.
Conditions to avoid	Avoid contact with heat and ignition sources.
Incompatible materials	Strong oxidizing agents
Hazardous decomposition product(s)	Carbon monoxide, Carbon dioxide, Acrid smoke

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes: Inhalation**,** Skin Contact**,** Eye Contact

Information on toxicological effects

Methanol (CAS# 67-56-1)

Acute toxicity *
LD50 (oral, monkey): 7000 mg/kg-bw
LD0 (oral, rat): ≥ 2528 mg/kg-bw
LC50 (inhal., cat, 6-hours): 43.68 mg/L
LC50 (inhal., monkey, 4-hours): 52 mg/L
Ingestion may damage the optic nerve.
May cause dizziness and drowsiness.

Irritation
May cause eye irritation.

Sensitisation
It is not a skin sensitiser.

Repeated dose toxicity
NOAEC (2-yr. inhal., mouse): ≥ 1.3 mg/L

Developmental Toxicity
Negative. Not a specific developmental toxin.

Toxicity for reproduction
Negative. Not a specific reproductive toxin.

Mutagenicity
Negative

Carcinogenicity

NTP	IARC	ACGIH	OSHA	NIOSH
No.	No.	No.	No.	No.

Other information
* ATE (oral) = 100 mg/kg
* ATE (dermal) = 300 mg/kg
* ATE (inhalation) = 3 mg/L

*ATE = Acute Toxicity Estimate for purposes of classification

Acetone (CAS No. 67-64-1)

Acute toxicity
Oral LD50 = 5800 mg/kg (rat)
Dermal LD50 >15800 mg/kg (rabbit)
Inhalation LC50 76 mg/L (4 hour(s)) (rat) - Vapours may cause drowsiness and dizziness.

Irritation / Corrosivity
Causes serious eye irritation. Repeated exposure may cause skin dryness or cracking.

Sensitisation
It is not a skin sensitiser.

Repeated dose toxicity
Oral NOAEL = 900 mg/kg/day (rat) (90-days)
Inhalation NOAEL ≥ 19,000 ppm (rat)

Carcinogenicity It is unlikely to present a carcinogenic hazard to man.

NTP	IARC	ACGIH	OSHA	NIOSH
No.	No.	No.	No.	No.

Mutagenicity Negative
Toxicity for reproduction Negative
Other information None known.

Toluene (CAS No. 108-88-3)

Acute toxicity Oral LD50 = 5580 mg/kg (rat)
Dermal LD50 >5000 mg/kg (rabbit)
Inhalation LC50 (4 hour(s)) 28.1 mg/l (rat) - Vapours may cause drowsiness and dizziness.

Irritation / Corrosivity Causes serious eye irritation. Causes skin irritation.

Sensitisation It is not a skin sensitiser.

Repeated dose toxicity Inhalation NOAEC = 1131 mg/m^3 (rat), 2 Year(s) - May cause damage to organs through prolonged or repeated exposure: neuropsychological effects, auditory dysfunction and effects on colour vision.

Carcinogenicity It is unlikely to present a carcinogenic hazard to man.

NTP	IARC	ACGIH	OSHA	NIOSH
No.	No.	No.	No.	No.

Mutagenicity There is no evidence of mutagenic potential.

Reproductive toxicity Suspected of damaging the unborn child. NOAEC: 2.8 mg/liter (rat)

Heptane, branched, cylic and linear (CAS# 426260-76-6) - By analogy with similar materials:

Acute toxicity Oral: LD50 >5 g/kg-bw
Dermal: LD50 >2 g/kg-bw
Inhalation: LC50 = 65 - 103 mg/L (Vapor), 4-hr. rat
May cause drowsiness or dizziness.
May be fatal if swallowed and enters airways.

Irritation/Corrosivity Causes skin irritation. Repeated exposure may cause skin dryness or cracking. May cause eye irritation.

Sensitization It is not a skin sensitizer.

Repeated dose toxicity NOAEC: 12350 mg/m3 (2 yr, inhal., rat, Systemic effects)
LOAEC: 1650 mg/m3 (2 hr, inhal., rat, CNS effects)
May cause drowsiness or dizziness.

Carcinogenicity No data. It is unlikely to present a carcinogenic hazard to man.

NTP	IARC	ACGIH	OSHA	NIOSH
No.	No.	No.	No.	No.

Mutagenicity There is no evidence of mutagenic potential.
Reproductive toxicity Not available

SECTION 12: ECOLOGICAL INFORMATION

Substances in preparations / mixtures:

Toluene (CAS No. 108-88-3)

Acute toxicity	LC50 (96 hour): 5.5 mg/l (*Oncorhynchus kisutch*) EC50 (48 hour): 3.78 mg/l (*Ceriodaphnia dubia*) EC50 (3 hour): 134 mg/l (Algae)
Long Term Toxicity	NOEC (40 days): 1.39 mg/l (*Oncorhynchus kisutch*) NOEC (7 days): 0.74 mg/l (*Ceriodaphnia dubia*)

Heptane, branched, cylic and linear (CAS# 426260-76-6) - By analogy with similar materials:

Short term	LL50 (96 hour): >13.4 mg/L (*Oncorhynchus mykiss*)EL50 (48 hour): 3 mg/l (*Daphnia magna,* mobility*)* EC50 (96 hour): 13 mg/l (*Pseudokirchnerella subcapitata*)
Long Term	NOELR (28 days) 1.5 mg/l *(Fish*) QSAR LOEC (21 days): 0.32 mg/l (*Daphnia magna*) NOEL (96 hour) 6.3 mg/l (Algae)
Persistence and degradability	Readily biodegradable.
Bioaccumulative potential	The product has no potential for bioaccumulation.
Mobility in soil	Not available.
Results of PBT and vPvB assessment	Not classified as PBT or vPvB.
Other adverse effects	None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods — Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.

SECTION 14: TRANSPORT INFORMATION

	U.S. DOT	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN number	1950	1950	1950
Proper Shipping Name	Aerosols, flammable	Aerosols, flammable	Aerosols, flammable
Transport hazard class(es)	2.1	2.1	2.1
Packing group	Not applicable	Not applicable	Not applicable
Environmental hazards	None assigned	None assigned	None assigned
Special precautions for user	None assigned	None assigned	None assigned

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable

SECTION 15: REGULATORY INFORMATION

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

TSCA (Toxic Substance Control Act) - Inventory Status**:** All components listed or polymer exempt.

Designated Hazardous Substances and Reportable Quantities (40 CFR 302.4):

Chemical Name	CAS No.	Typical %wt.	RQ (Pounds)
Acetone	67-64-1	30 - 50	5000
Methanol	67-56-1	5 - 10	5000
Toluene	108-88-3	5 - 10	1000

SARA 311/312 - Hazard Categories:

☒ Fire ☒ Sudden Release ☐ Reactivity ☒ Immediate (acute) ☒ Chronic (delayed)

SARA 313 - Toxic Chemicals (40 CFR 372):

Chemical Name	CAS No.	Typical %wt.
Methanol	67-56-1	5 - 10
Toluene	108-88-3	5 - 10

SARA 302 - Extremely Hazardous Substances(40 CFR 355):

Chemical Name	CAS No.	Typical %wt.	TPQ (pounds)
None	----	----	----

California Proposition 65 List:

Chemical Name	CAS No.	Type of Toxicity
Methanol	67-56-1	Developmental
Toluene	108-88-3	Developmental, Female Reproductive
Benzene*	71-43-2	Cancer, Developmental (male)
Acetaldehyde*	75-07-0	Cancer
Cumene*	98-82-8	Cancer

*Trace to none.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.
Date of preparation: March 30,2017

Hazard Statement(s) and Risk Phrases Listed in: SECTION 2:/ SECTION 3:

Hazard Statement(s)

- H225: Highly flammable liquid and vapor.
- H301: Toxic if swallowed.
- H304: May be fatal if swallowed and enters airways.
- H311: Toxic in contact with skin.
- H315: Causes skin irritation.
- H319: Causes serious eye irritation.
- H331: Toxic if inhaled.
- H336: May cause drowsiness or dizziness.
- H361: Suspected of damaging fertility or the unborn child.
- H370: Causes damage to organs.
- H373: May cause damage to organs through prolonged or repeated exposure.

Training advice: None.

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