



1. Identification

rakleen® Brake Parts Cleaner - 5 gal 20. 05186 (Item# 1003747) Take parts cleaner Done known. tributor information RC Industries, Inc. 35 Louis Dr. 36 Louis Dr. 37 Annuster, PA 18974 US 15-674-4300 20-521-3168 20-272-4620 20-424-9300 (US) ww.crcindustries.com	
rake parts cleaner one known. tributor information RC Industries, Inc. 35 Louis Dr. arminster, PA 18974 US 15-674-4300 00-521-3168 00-272-4620 00-424-9300 (US) ww.crcindustries.com	
rake parts cleaner one known. tributor information RC Industries, Inc. 35 Louis Dr. arminster, PA 18974 US 15-674-4300 00-521-3168 00-272-4620 00-424-9300 (US) ww.crcindustries.com	
one known. tributor information RC Industries, Inc. 35 Louis Dr. arminster, PA 18974 US 15-674-4300 00-521-3168 00-272-4620 00-424-9300 (US) ww.crcindustries.com	
tributor information RC Industries, Inc. 35 Louis Dr. arminster, PA 18974 US 15-674-4300 00-521-3168 00-272-4620 00-424-9300 (US) ww.crcindustries.com	
RC Industries, Inc. 35 Louis Dr. arminster, PA 18974 US 15-674-4300 00-521-3168 00-272-4620 00-424-9300 (US) ww.crcindustries.com	
35 Louis Dr. arminster, PA 18974 US 15-674-4300 00-521-3168 00-272-4620 00-424-9300 (US) ww.crcindustries.com	
35 Louis Dr. arminster, PA 18974 US 15-674-4300 00-521-3168 00-272-4620 00-424-9300 (US) ww.crcindustries.com	
arminster, PA 18974 US 15-674-4300 00-521-3168 00-272-4620 00-424-9300 (US) ww.crcindustries.com	
15-674-4300)0-521-3168)0-272-4620)0-424-9300 (US) ww.crcindustries.com	
00-521-3168 00-272-4620 00-424-9300 (US) ww.crcindustries.com	
00-521-3168 00-272-4620 00-424-9300 (US) ww.crcindustries.com	
00-272-4620 00-424-9300 (US) ww.crcindustries.com	
00-424-9300 (US) ww.crcindustries.com	
ww.crcindustries.com	
ammable liquids	
ammable liquids	
	Category 2
cute toxicity, oral	Category 3
kin corrosion/irritation	Category 2
erious eye damage/eye irritation	Category 2A
eproductive toxicity	Category 1A
pecific target organ toxicity, single exposure	Category 1 (central nervous system, eyes)
pecific target organ toxicity, single exposure	Category 3 narcotic effects
pecific target organ toxicity, repeated posure	Category 1
spiration hazard	Category 1
azardous to the aquatic environment, acute azard	Category 2
azardous to the aquatic environment, ng-term hazard	Category 2
ot classified.	
az az az nę	piration hazard zardous to the aquatic environment, acute zard zardous to the aquatic environment, g-term hazard

Signal word Hazard statement Danger Highly flammable liquid ar

Highly flammable liquid and vapor. Toxic if swallowed. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. May damage fertility or the unborn child. Causes damage to organs (central nervous system, eyes). Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Precautionary statement	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Use only with adequate ventilation; maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.
Response	If swallowed: Immediately call a poison center/doctor. Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If in eyes: 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. If exposed: Call a poison center/doctor. In case of fire: Do not use water jet as an extinguisher, as this will spread the fire. Collect spillage.
Storage	Keep cool. Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national regulations.
Hazard(s) not otherwise classified (HNOC)	Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
methanol		67-56-1	40 - 50
naphtha (petroleum), hydrotreated light		64742-49-0	10 - 20
toluene		108-88-3	10 - 20
acetone		67-64-1	5 - 10
heptane, branched, cyclic and linear		426260-76-6	5 - 10
solvent naphtha (petroleum), light aliph.		64742-89-8	3 - 5
3-methylhexane		589-34-4	1 - 3
n-heptane		142-82-5	1 - 3
2-methylhexane		591-76-4	< 1
2,3-dimethylpentane		565-59-3	< 0.2
3-ethylpentane		617-78-7	< 0.2

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures	
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Most important symptoms/effects, acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.		
General information	Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.		
5. Fire-fighting measures			
Suitable extinguishing media	Water fog. Alcohol resistant foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.		
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.		
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.		
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.		
Fire-fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use standard firefighting procedures and consider the hazards of other involved materials.		
General fire hazards	Highly flammable liquid and vapor.		
6. Accidental release mea	sures		
Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.		
Methods and materials for			
containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent entry into waterways, sewer, basements or confined areas.		
containment and cleaning up	combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent entry into waterways, sewer,		
containment and cleaning up	combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent entry into waterways, sewer, basements or confined areas. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product		
containment and cleaning up	 combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent entry into waterways, sewer, basements or confined areas. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to 		
containment and cleaning up	combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent entry into waterways, sewer, basements or confined areas. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.		

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not taste or swallow. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. For product usage instructions, see the product label.
Conditions for safe storage, including any incompatibilities	Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Туре	Value
acetone (CAS 67-64-1)	PEL	2400 mg/m3
		1000 ppm
methanol (CAS 67-56-1)	PEL	260 mg/m3
		200 ppm
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	PEL	400 mg/m3
		100 ppm
n-heptane (CAS 142-82-5)	PEL	2000 mg/m3
		500 ppm
solvent naphtha (petroleum), light aliph. (CAS 64742-89-8)	PEL	400 mg/m3
		100 ppm
US. OSHA Table Z-2 (29 CFR 1910.1000)		
Components	Туре	Value
toluene (CAS 108-88-3)	Ceiling	300 ppm
	TWA	200 ppm
US. ACGIH Threshold Limit Values		
Components	Туре	Value
2,3-dimethylpentane (CAS 565-59-3)	STEL	500 ppm
	TWA	400 ppm
2-methylhexane (CAS	TWA STEL	400 ppm 500 ppm
2-methylhexane (CAS		
2-methylhexane (CAS 591-76-4) 3-ethylpentane (CAS 617-78-7)	STEL	500 ppm

US. ACGIH Threshold Limit Value	s		
Components	Туре	Value	
3-methylhexane (CAS 589-34-4)	STEL	500 ppm	
	TWA	400 ppm	
acetone (CAS 67-64-1)	STEL	500 ppm	
	TWA	250 ppm	
methanol (CAS 67-56-1)	STEL	250 ppm	
	TWA	200 ppm	
n-heptane (CAS 142-82-5)	STEL	500 ppm	
	TWA	400 ppm	
toluene (CAS 108-88-3)	TWA	20 ppm	
US. NIOSH: Pocket Guide to Cher	nical Hazards		
Components	Туре	Value	
acetone (CAS 67-64-1)	TWA	590 mg/m3	
		250 ppm	
methanol (CAS 67-56-1)	STEL	325 mg/m3	
		250 ppm	
	TWA	260 mg/m3	
		200 ppm	
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	TWA	400 mg/m3	
		100 ppm	
n-heptane (CAS 142-82-5)	Ceiling	1800 mg/m3	
		440 ppm	
	TWA	350 mg/m3	
		85 ppm	
solvent naphtha (petroleum), light aliph. (CAS 64742-89-8)	TWA	400 mg/m3	
		100 ppm	
toluene (CAS 108-88-3)	STEL	560 mg/m3	
		150 ppm	
	TWA	375 mg/m3	
		100 ppm	
		100 pp	

Biological limit values

ACGIH Biological Exposure Indices

Value	Determinant	Specimen	Sampling Time	
25 mg/l	Acetone	Urine	*	
15 mg/l	Methanol	Urine	*	
0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*	
0.03 mg/l	Toluene	Urine	*	
0.02 mg/l	Toluene	Blood	*	
	25 mg/l 15 mg/l 0.3 mg/g 0.03 mg/l	25 mg/lAcetone15 mg/lMethanol0.3 mg/go-Cresol, with hydrolysis0.03 mg/lToluene	25 mg/lAcetoneUrine15 mg/lMethanolUrine0.3 mg/go-Cresol, with hydrolysisCreatinine in urine0.03 mg/lTolueneUrine	25 mg/lAcetoneUrine*15 mg/lMethanolUrine*0.3 mg/go-Cresol, with hydrolysisCreatinine in urine*0.03 mg/lTolueneUrine*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

methanol (CAS 67-56-1) toluene (CAS 108-88-3) Can be absorbed through the skin. Can be absorbed through the skin.

US - Minnesota Haz Subs: S	kin designation applies	
methanol (CAS 67-56-1)	Skin designation applies.	
toluene (CAS 108-88-3)	Skin designation applies.	
US - Tennessee OELs: Skin	designation	
methanol (CAS 67-56-1)	Can be absorbed through the skin.	
US ACGIH Threshold Limit V	/alues: Skin designation	
methanol (CAS 67-56-1)	Can be absorbed through the skin.	
US NIOSH Pocket Guide to C	Chemical Hazards: Skin designation	
methanol (CAS 67-56-1)	Can be absorbed through the skin.	
Appropriate engineering controls	Explosion-proof general and local exhaust ventilation. 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. Eye wash facilities and emergency shower should be available when handling this product.	
Individual protection measures,	such as personal protective equipment	
Eye/face protection	Wear safety glasses with side shields (or goggles).	
Skin protection	Wear protective gloves such as: Nitrile, Delwinyd gloebel (DVA), Neoprope	
Hand protection	Wear protective gloves such as: Nitrile. Polyvinyl alcohol (PVA). Neoprene.	
Other	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.	
Respiratory protection	If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.	
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.	
General hygiene considerations	When using, do not eat, drink or smoke. 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.	
0 Dhysical and shamical		

9. Physical and chemical properties

Appearance	
Physical state	Liquid.
Form	Liquid.
Color	Clear.
Odor	Solvent.
Odor threshold	Not available.
рН	Not available.
Melting point/freezing point	-144 °F (-97.8 °C) estimated
Initial boiling point and boiling range	132.9 °F (56.1 °C) estimated
Flash point	-0.00004 °F (-17.8 °C)
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or expl	losive limits
Flammability limit - lower (%)	1 % estimated
Flammability limit - upper (%)	36 % estimated
Vapor pressure	107.9 hPa estimated
Vapor density	Not available.
Relative density	0.78
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.

Auto-ignition temperature	539.6 °F (282 °C) estimated
Decomposition temperature	Not available.
Percent volatile	99.9 % estimated

10. Stability and reactivity

2	-
Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Contact with incompatible materials.
Incompatible materials	Acids. Alkalies. Reducing agents. Strong oxidizing agents. Hypochlorites. Peroxides. Aluminum. Magnesium. Sodium. Zinc.
Hazardous decomposition products	Carbon oxides. Formaldehyde.

11. Toxicological information

Information on likely routes of exposure			
Inhalation	May cause damage to organs by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.		
Skin contact	Causes skin irritation.		
Eye contact	Causes serious eye irritation.		
Ingestion	Toxic if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.		
Symptoms related to the physical, chemical and toxicological characteristics	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.		

Information on toxicological effects

Acute toxicity	May be fatal if swallowed and enter	s airways.
Components	Species	Test Results
3-methylhexane (CAS 589-	-34-4)	
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Rat	> 20 mg/l, 4 hours
Oral		
LD50	Rat	> 2000 mg/kg
acetone (CAS 67-64-1)		
Acute		
Dermal		
LD50	Rabbit	> 15800 mg/kg
		20000 mg/kg
Inhalation		
LC50	Rat	76 mg/l, 4 Hours
Oral		
LD50	Rat	5800 mg/kg
heptane, branched, cyclic a	and linear (CAS 426260-76-6)	
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Rat	> 60 mg/l, 4 hours

Components	Species	Test Results
Oral LD50	Rat	> 5000 mg/kg
methanol (CAS 67-56-1)		
Acute		
Dermal		
LD50	Rabbit	12800 mg/kg
Oral		
LD50	Rat	5628 mg/kg
naphtha (petroleum), hydrotreated	light (CAS 64742-49-0)	
<u>Acute</u>		
Dermal LD50	Rabbit	> 2000 mg/kg
Inhalation	Kabbit	2 2000 mg/kg
LC50	Rat	61 mg/l, 4 Hours
Oral		
LD50	Rat	> 5000 mg/kg
n-heptane (CAS 142-82-5)		
Acute		
Dermal		
LD50	Rabbit	3000 mg/kg
Inhalation		
Vapor	- <i>i</i>	
LC50	Rat	> 73.5 mg/l, 4 hours
Oral	Det	25000 mg/kg
LD50		25000 mg/kg
solvent naphtha (petroleum), light a <u>Acute</u>	aliph. (CAS 64742-69-6)	
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Rat	61 mg/l, 4 Hours
Oral		
LD50	Rat	> 3000 mg/kg
toluene (CAS 108-88-3)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 5000 mg/kg
Inhalation	Det	12 E mg/L 4 hours
LC50	Rat	12.5 mg/l, 4 hours
Oral LD50	Rat	5580 mg/kg
		3300 mg/kg
Skin corrosion/irritation	Causes skin irritation. Causes serious eye irritation.	
Serious eye damage/eye irritation	Causes senous eye initation.	
Respiratory or skin sensitizatior	1	
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitiza	
Germ cell mutagenicity	No data available to indicate product or any compo mutagenic or genotoxic.	nents present at greater than 0.1% are
Carcinogenicity	Not classifiable as to carcinogenicity to humans.	

IARC Monographs. Overall	Evaluation of Carcinogenicity
toluene (CAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.
OSHA Specifically Regulate	ed Substances (29 CFR 1910.1001-1052)
Not regulated.	
US. National Toxicology Pro	ogram (NTP) Report on Carcinogens
Not listed.	
Reproductive toxicity	May damage fertility or the unborn child.
Specific target organ toxicity - single exposure	Causes damage to organs (central nervous system, eyes). May cause drowsiness and dizziness.
Specific target organ toxicity - repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	May be fatal if swallowed and enters airways.
Chronic effects	Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity	Toxic to a	quatic life with long lasting effects.	
Components		Species	Test Results
acetone (CAS 67-64-1)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	4740 - 6330 mg/l, 96 hours
Acute			
Crustacea	EC50	Daphnia magna	10294 - 17704 mg/l, 48 hours
heptane, branched, cycl	ic and linear (CAS	5 426260-76-6)	
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	1.5 mg/l, 48 hours
methanol (CAS 67-56-1)		
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	> 10000 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	> 100 mg/l, 96 hours
naphtha (petroleum), hy	drotreated light (C	CAS 64742-49-0)	
Aquatic			
Acute			
Crustacea	EC50	Daphnia	1 - 10 mg/l, 48 hours
Fish	LC50	Fish	1 - 10 mg/l, 96 hours
n-heptane (CAS 142-82	-5)		
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	1.5 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	2.1 - 2.98 mg/l, 96 hours
solvent naphtha (petrole	eum), light aliph. (CAS 64742-89-8)	
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	8.8 mg/l, 96 hours
			8.8 mg/l, 96 hours
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	1.5 mg/l, 48 hours
toluene (CAS 108-88-3)			
Acute			
Other	EC50	Pseudokirchnerella subcapitata	433 mg/l, 96 hours

Components		Species	Test Results	
			12.5 mg/l, 72 hours	
Aquatic				
Acute				
Crustacea	EC50	Water flea (Daphnia magna)	6 mg/l, 48 hours	
Fish	LC50	Coho salmon,silver salmon (Oncorhynchus kisutch)	5.5 mg/l, 96 hours	
Persistence and degradability	No data is	available on the degradability of any ir	ngredients in the mixture.	
Bioaccumulative potential				
Partition coefficient n-octan	nol / water (le	og Kow)		
acetone		-0.24		
methanol		-0.77		
n-heptane		4.66		
toluene		2.73		
Bioconcentration factor (BC				
naphtha (petroleum), hydrotre	eated light	10 - 25000		
toluene		90		
Mobility in soil	No data av	/ailable.		
Other adverse effects		No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.		
13. Disposal consideratio	ons			
Hazardous waste code	F003: Was	ste Flammable material with a flash poi ste Non-halogenated Solvent - Spent N ste Non-halogenated Solvent - Spent N	on-halogenated Solvent	
Disposal instructions	dispose in sewers/wa	sealed containers at licensed waste di	of as hazardous waste. Collect and reclaim or sposal site. Do not allow this material to drain int s, waterways or ditches with chemical or used ble regulations.	
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.			
14. Transport information	1			
тос				
UN number	UN1992			
UN proper shipping name		e liquids, toxic, n.o.s. (methanol RQ = 1 NT (heptanes)	1785 LBS, toluene RQ = 5515 LBS), MARINE	
Transport hazard class(es)	1 0220171			
Class	3			
Subsidiary risk	6.1			
Label(s)	3, 6.1			
Packing group	II			
Environmental hazards				
Marine pollutant	Yes			
Special precautions for use	r Not availal	ble.		
Special provisions	IB2, T7, TI			
Packaging exceptions	150			
Packaging non bulk	202			

Packaging non bulk	202
Packaging bulk	243
ΙΑΤΑ	
UN number	UN1992
UN proper shipping name	Flammable liquid, toxic, n.o.s. (methanol, toluene)
Transport hazard class(es)	
Class	3
Subsidiary risk	6.1
Packing group	II
ERG Code	3HP
Special precautions for user	Not available.

Other information				
Passenger and cargo aircraft	Allowed with restrictions.			
Cargo aircraft only	Allowed with restrictions.			
IMDG				
UN number				
UN proper shipping name Transport hazard class(es)	FLAMMABLE LIQUID, TOXIC, N.O.S. (methanol, toluene), MARINE POLLUTANT (heptanes)			
Class	3			
Subsidiary risk	6.1			
Packing group	II			
Environmental hazards				
Marine pollutant	Yes			
EmS	F-E, S-D			
Special precautions for use	r Not available.			
DOT	_			
FLAMMABLE LIQUID	6			
IATA; IMDG	\checkmark			
Marine pollutant	·			
15. Regulatory informatio	n			
US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication			

All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Standard, 29 CFR 1910.1200.

Not regulated. SARA 304 Emergency release notification Not regulated. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052) Not regulated.

US EPCRA (SARA Title	US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance		
toluene (CAS 108-8	methanol (CAS 67-56-1) toluene (CAS 108-88-3)		
	CERCLA Hazardous Substance List (40 CFR 302.4)		
acetone (CAS 67-64 methanol (CAS 67-5			
toluene (CAS 108-8	,		
CERCLA Hazardous Su		le quantity	
acetone (CAS 67-64	=	5000 LBS	
methanol (CAS 67-5		5000 LBS	
toluene (CAS 108-8	8-3)	1000 LBS	
		igredient at or above its RC Local Emergency Planning	e require immediate notification to the National Committee.
Other federal regulations			
Clean Air Act (CAA) Section	n 112 Hazardous Air	Pollutants (HAPs) List	
methanol (CAS 67-56-1) toluene (CAS 108-88-3)		Delege Drevention (40.00	-D (0 420)
Clean Air Act (CAA) Section Not regulated.		Release Frevention (40 Cr	R 66.150)
Safe Drinking Water Act (SDWA)	Not regulated.		
()		ist 2, Essential Chemicals	s (21 CFR 1310.02(b) and 1310.04(f)(2) and
acetone (CAS 67-64		6532	
toluene (CAS 108-8		6594	
-		-	al Mixtures (21 CFR 1310.12(c))
acetone (CAS 67-64		35 %WV	
toluene (CAS 108-8 DEA Exempt Chemical		35 %WV ber	
acetone (CAS 67-64		6532	
toluene (CAS 108-8		594	
FEMA Priority Substan	ces Respiratory Hea	Ith and Safety in the Flav	or Manufacturing Workplace
acetone (CAS 67-64	-1)	Low priority	
Food and Drug Administration (FDA)	Not regulated.		
Superfund Amendments and Re	eauthorization Act o	f 1986 (SARA)	
Classified hazard		, aerosols, liquids, or solids)
categories	Acute toxicity (any Skin corrosion or ir		
	Serious eye damag	ge or eye irritation	
	Reproductive toxic		
	Aspiration hazard	an toxicity (single or repeate	
		se classified (HNOC)	
SARA 302 Extremely hazar	dous substance		
Not listed.			
SARA 311/312 Hazardous chemical	Yes		
SARA 313 (TRI reporting)			
Chemical name		CAS number	% by wt.
methanol		67-56-1	40 - 50
toluene		108-88-3	10 - 20
US state regulations			
US. New Jersey Worker and		to-Know Act	
2,3-dimethylpentane (CA			
3-methylhexane (CAS 58 acetone (CAS 67-64-1)	09-34-4)		
methanol (CAS 67-56-1)			
naphtha (petroleum), hyd		64742-49-0)	
	-		

n-heptane (CAS 142-82-5) solvent naphtha (petroleum), light aliph. (CAS 64742-89-8) toluene (CAS 108-88-3)

US. Massachusetts RTK - Substance List

2,3-dimethylpentane (CAS 565-59-3) 2-methylhexane (CAS 591-76-4) 3-methylhexane (CAS 589-34-4) acetone (CAS 67-64-1) methanol (CAS 67-56-1) naphtha (petroleum), hydrotreated light (CAS 64742-49-0) n-heptane (CAS 142-82-5) solvent naphtha (petroleum), light aliph. (CAS 64742-89-8) toluene (CAS 108-88-3)

US. Pennsylvania Worker and Community Right-to-Know Law

2,3-dimethylpentane (CAS 565-59-3) 3-methylhexane (CAS 589-34-4) acetone (CAS 67-64-1) methanol (CAS 67-56-1) naphtha (petroleum), hydrotreated light (CAS 64742-49-0) n-heptane (CAS 142-82-5) solvent naphtha (petroleum), light aliph. (CAS 64742-89-8) toluene (CAS 108-88-3)

US. Rhode Island RTK

acetone (CAS 67-64-1) methanol (CAS 67-56-1) naphtha (petroleum), hydrotreated light (CAS 64742-49-0) n-heptane (CAS 142-82-5) solvent naphtha (petroleum), light aliph. (CAS 64742-89-8) toluene (CAS 108-88-3)

California Proposition 65



WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

California Proposition 65 - CRT: Listed date/Carcinogenic substance

acetaldehyde (CAS 75-07-0) benzene (CAS 71-43-2) cumene (CAS 98-82-8) ethylbenzene (CAS 100-41-4) naphthalene (CAS 91-20-3)

Listed: April 19, 2002 California Proposition 65 - CRT: Listed date/Developmental toxin

benzene (CAS 71-43-2) Listed: December 26, 1997 methanol (CAS 67-56-1) Listed: March 16, 2012 toluene (CAS 108-88-3) Listed: January 1, 1991

California Proposition 65 - CRT: Listed date/Male reproductive toxin

Listed: December 26, 1997 benzene (CAS 71-43-2) n-hexane (CAS 110-54-3) Listed: December 15, 2017

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3,

Listed: April 1, 1988

Listed: April 6, 2010

Listed: June 11, 2004

Listed: February 27, 1987

subd. (a))

acetone (CAS 67-64-1) methanol (CAS 67-56-1) naphtha (petroleum), hydrotreated light (CAS 64742-49-0) n-heptane (CAS 142-82-5) solvent naphtha (petroleum), light aliph. (CAS 64742-89-8) toluene (CAS 108-88-3)

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 90 % 51.100(s)) Consumer products Not regulated (40 CFR 59, Subpt. C)

State This product is regulated as a Brake Cleaner. This product is not compliant to be sold for use in **Consumer products** California, Connecticut, Delaware, the District of Columbia, Illinois, Indiana, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island and parts of Utah and Virginia. This product is compliant in all other states. VOC content (CA) 90 % 90 % VOC content (OTC) International Inventories Country(s) or region On inventory (yes/no)* Inventory name Australia Australian Inventory of Chemical Substances (AICS) No Canada Domestic Substances List (DSL) No Canada Non-Domestic Substances List (NDSL) Yes China Inventory of Existing Chemical Substances in China (IECSC) No European Inventory of Existing Commercial Chemical Europe No Substances (EINECS) Europe European List of Notified Chemical Substances (ELINCS) No Japan Inventory of Existing and New Chemical Substances (ENCS) No Existing Chemicals List (ECL) Korea Yes New Zealand New Zealand Inventory No Philippines Philippine Inventory of Chemicals and Chemical Substances Yes (PICCS) Taiwan Taiwan Chemical Substance Inventory (TCSI) Yes Toxic Substances Control Act (TSCA) Inventory United States & Puerto Rico Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	08-01-2019
Prepared by	Allison Yoon
Version #	01
Further information	CRC # 483A/1002477
Disclaimer	The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC's knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries, Inc
Revision information	Product and Company Identification: Product Codes Ecological Information: Ecotoxicity Transport Information: Material Transportation Information