Safety Data Sheet

Material Name: QSOL™ 220 CLEANING SOLVENT **SDS ID: 82864**

* * * Section 1 - Identification * * *

Product Identifier

QSOL™ 220 Cleaning Solvent

Product Code

6540

Synonyms

Parachlorobenzotrifluoride (PCBTF)

Recommended Use

Cleaning and degreasing metal parts. QSOL 220 is certified by California's South Coast Air Quality Management District (SCAQMD) as a Clean Air Solvent (CAS). Also see **Section 15: Volatile Organic Compounds**. If this product is used in combination with other products, refer to the Safety Data Sheet for those products.

Restrictions on Use

None known.

Manufacturer Information

Safety-Kleen Systems, Inc.
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Original Issue Date

November 29, 2011

* * * Section 2 - Hazard(s) Identification * * *

Classification in Accordance with 29 CFR 1910.1200.

Flammable Liquids, Category 3
Acute Toxicity (Dermal), Category 4
Toxic to Reproduction, Category 2

GHS LABEL ELEMENTS

Symbol(s)

Signal Word

WARNING!

Hazard Statement(s)

Flammable liquid and vapor
Harmful in contact with skin
Suspected of damaging fertility or the unborn child

Precautionary Statement(s)

Prevention

Keep away from heat, sparks, open flame, and hot surfaces - No smoking. Keep container tightly closed. Take precautionary measures against static discharge. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Response

If exposed or concerned: Get medical advice/attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. In case of fire, use media appropriate for extinction. Call a POISON CENTER or doctor/physician if you feel unwell. Specific treatment may be needed, see first aid section of Safety Data Sheet. Wash contaminated clothing before reuse.

Storage

Store in a well-ventilated place. Keep cool.

Disposal

Dispose of in accordance with all applicable federal, state and local regulations.

Hazard(s) Not Otherwise Classified

None known.

* * * Section 3 - Composition / Information on Ingredients * * *

CAS	Component	Percent
98-56-6	p-Chloro-a,a,a-trifluorotoluene	93-97
556-67-2	Octamethylcyclotetrasiloxane	3-7

* * * Section 4 - First Aid Measures * * *

Description of Necessary Measures

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.

Skin

IF ON SKIN (or hair): Rinse skin with water/shower. Call a POISON CENTER or doctor/physician if you feel unwell.

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops or persists.

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms/Effects

Acute

Harmful in contact with skin.

Delayed

Reproductive effects.

Indication of Immediate Medical Attention and Special Treatment Needed, If Needed

Treat symptomatically and supportively.

* * * Section 5 - Fire-Fighting Measures * * *

Suitable Extinguishing Media

Carbon dioxide, regular foam, dry chemical, water spray, or water fog.

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Specific Hazards Arising from the Chemical

Flammable liquid and vapor. Avoid friction, static electricity and sparks. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Runoff to sewer may cause a fire or explosion hazard. Empty containers may contain product residue.

Hazardous Combustion Products

Decomposition and combustion materials may be toxic. Burning may produce chlorine gas, fluorine gas, formaldehyde, silicon oxides, carbon monoxide, and unidentified organic compounds.

Special Protective Equipment and Precautions for Firefighters

A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

Fire Fighting Measures

Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Apply water from a protected location or from a safe distance. Dike for later disposal.

NFPA Ratings: Health: 1 **Fire:** 2 **Reactivity:** 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

* * * Section 6 - Accidental Release Measures * * *

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see **Section 8**. Avoid release to the environment.

Methods and Materials for Containment and Clean Up

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in **Section 8: Exposure Controls/Personal Protection**. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal.

Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

There may be specific federal regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see **Section 15: Regulatory Information.**

* * * Section 7 - Handling and Storage * * *

Precautions for Safe Handling

Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. When transferring product, trucks and tank cars should be grounded and bonded. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes. Do not smoke when using this product. Do not breathe vapor or mist.

Conditions for Safe Storage, Including Any Incompatibilities

Keep container tightly closed when not in use and during transport. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition; containers may explode and cause injury or death. Empty product containers may retain product residue and can be dangerous. See **Section 14: Transportation Information** for Packing Group information.

Incompatibilities

Acids, alkalies, oxidizing agents, reactive metals.

* * * Section 8 - Exposure Controls / Personal Protection * * *

Component Exposure Limits

ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this product's components.

Appropriate Engineering Controls

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits. Ensure compliance with applicable exposure limits.

Individual Protective Measures, such as Personal Protective Equipment

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to regulatory requirements. The following PPE should be considered the minimum required: safety glasses, gloves, lab coat or apron.

Eyes/Face Protection

Safety glasses with side shields should be worn at a minimum. Additional protection such as goggles, face shields, or respirators may be needed depending upon anticipated use and concentrations of mists or vapors. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. Contact lens use is not recommended.

Skin Protection

Where skin contact is likely, wear chemical impervious protective gloves; use of natural rubber (latex) or equivalent gloves is not recommended.

To avoid prolonged or repeated contact with product where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, whole body suits or other protective clothing.

Respiratory Protection

Use NIOSH-certified, full-face, air-purifying respirators with P- or R- series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air-purifying respirators is limited. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

* * * Section 9 - Physical & Chemical Properties * * *

Appearance/Odor :	Clear and colorless; Naphthalenic odor	**pH:**	Not Applicable
		Odor Threshold:	Not Available
Boiling Point:	282°F (139°C) (approximately)	**Melting Point:**	-33 °F (-36 °C) (approximately)
Solubility (H2O):	Slight	**Specific Gravity:**	1.3 (water=1) (approximately)
Density:	11.2 lb/ US gal (1300 g/L) (approximately)	**Octanol/H2O Coeff.:**	Log Pow= 3.7 (approximately)
Evaporation Rate:	0.9 (butyl acetate = 1)	**Auto Ignition Temperature:**	932°F (500°C) (minimum)
LFL:	0.9 Vol%	**Flash Point:**	103°F (39°C) (minimum)
UFL:	10.5 Vol%	**Viscosity:**	Not available
Vapor Pressure:	5.3 mmHg at 68°F (20°C) (approximately)	**Vapor Density:**	6.2 (air=1) (approximately)

Other Property Information

No information is available.

* * * Section 10 - Stability & Reactivity * * *

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable under normal temperatures and pressures.

Possibility of Hazardous Reactions

Will not polymerize.

Conditions To Avoid

Avoid heat, sparks, or flame. Avoid contact with incompatible materials.

Incompatible Materials

Avoid acids, alkalies, oxidizing agents, or reactive metals.

Hazardous Decomposition Products

None under normal temperatures and pressures., See also **Section 5: Hazardous Combustion Products**.

* * * Section 11 - Toxicological Information * * *

Toxicity Data and Information

Component Analysis - LD50/LC50

p-Chloro-a,a,a-trifluorotoluene (98-56-6)

Dermal LD50 Rabbit >2 mL/kg; Inhalation LC50 Rat 33 mg/L 4 h; Oral LD50 Rat 13 g/kg

Octamethylcyclotetrasiloxane (556-67-2)

Dermal LD50 Rabbit 794 µL/kg; Inhalation LC50 Rat 36 g/m3 4 h

Information on Likely Routes of Exposure

Inhalation

This product contains a siloxane compound which may generate formaldehyde vapors when exposed to temperatures exceeding 302°F in the presence of air. Formaldehyde is a known cancer hazard, causes irritation and sensitization to the respiratory system, causes throat irritation, and is extremely hazardous.

Ingestion

No information on significant adverse effects.

Skin Contact

Harmful in contact with skin.

Eye Contact

No information on significant adverse effects.

Immediate Effects

Harmful in contact with skin.

Delayed Effects

Reproductive effects

Irritation/Corrosivity

May cause irritation of the skin and eyes., May cause respiratory tract irritation.

Respiratory Sensitization

No information available for the product.

Skin Sensitization

No information available for the product.

Carcinogenicity

No carcinogenicity data available for this product. This product contains a siloxane compound which may generate formaldehyde vapors when exposed to temperatures exceeding 302°F in the presence of air. Formaldehyde is a known carcinogen.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

Germ Cell Mutagenicity

Based on best current information, there are no mutagenic effects associated with this product.

Teratogenicity

Based on best current information, there is no known teratogenicity associated with this product.

Reproductive Effects

Available data characterizes this substance as a reproductive hazard.

Specific Target Organ Effects - Single Exposure

No information on significant adverse effects.

Specific Target Organ Effects - Repeated Exposure

No information on significant adverse effects.

Aspiration Hazard

No data available.

Medical Conditions Aggravated by Exposure

Skin disorders, reproductive disorders

* * * Section 12 - Ecological Information * * *

Ecotoxicity

Toxic to aquatic life with long lasting effects.

Component Analysis - Ecotoxicity - Aquatic Toxicity

p-Chloro-a,a,a-trifluorotoluene (98-56-6)

Duration/Test/Species	Concentration/Conditions	Notes
48 Hr EC50 Daphnia magna	3.68 mg/L	

Octamethylcyclotetrasiloxane (556-67-2)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Brachydanio rerio	>500 mg/L	
96 Hr LC50 Lepomis macrochirus	>1000 mg/L	

Persistence and Degradability

No information available for the product.

Bioaccumulation Potential

This material is believed not to bioaccumulate.

Mobility in Soil

Expected to have high mobility in soil.

Other Adverse Effects

No additional information is available.

* * * Section 13 - Disposal Considerations * * *

Disposal Methods

If discarded, this product is considered a RCRA ignitable waste, D001. Processing, use, or contamination by the user may change the waste code applicable to the disposal of this product.

Dispose of in accordance with all applicable federal, state and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal.

* * * Section 14 - Transport Information * * *

Emergency Response Guide Number

128 Reference . *North American Emergency Response Guidebook*

Transportation Regulations

DOT

Non-Bulk Packages (less than or equal to 119 gallons) (Shipments via vessel and aircraft must use bulk shipping description.): Shipping Name: Cleaning compounds (aromatic halocarbon, siloxane)(Not US DOT Regulated)

Bulk Packages

Shipping Name: Combustible liquid, n.o.s. (p-chloro-a,a,a-trifluorotoluene)
UN/NA: NA1993 **Hazard Class:** Combustible liquid **Packing Group:** III **Required Placards:** Class 3, NA1993

TDG

SMALL MEANS OF CONTAINMENT (Shipments via aircraft must use large means of containment shipping description):
Shipping Name: CLEANING COMPOUNDS (aromatic halocarbon, siloxane)

LARGE MEANS OF CONTAINMENT
Shipping Name: Combustible liquid, n.o.s. (p-chloro-a,a,a-trifluorotoluene)
UN/NA: NA1993 **Hazard Class:** Combustible liquid **Packing Group:** III **Required Placards:** Class 3, NA1993

* * * Section 15 - Regulatory Information * * *

Volatile Organic Compounds (As Regulated)

100 WT%; 011.2 lb/ US gal; 0 1300 g/l
VOC Vapor Pressure @ 20°C = 5.3 mm Hg
As per 40 CFR Part 51.100(s).
This product has been certified as a Clean Air Solvent, having passed a chemical analysis performed by California's South Coast Air Quality Management District (SCAQMD) Laboratory. It complies with the Volatile Organics (VOC) requirement of 1171 – Solvent Cleaning Operations and with the exempted solvent requirements of the Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 16, because the cleaning solution is composed of branched, cyclic, or linear completely methylated siloxanes (VMS).

Federal Regulations

SARA 302/304

Component Analysis

Based on the ingredient(s) listed in SECTION 3, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

SARA 311/312 Hazardous Categories

Acute Health: Yes **Chronic Health:** Yes **Fire:** Yes **Pressure:** No **Reactive:** No

SARA Section 313

Component Analysis

This product does not contain any "toxic" chemical subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

CERCLA

Component Analysis

Based on the ingredient(s) listed in SECTION 3, this product does not contain any "hazardous substance" listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.

TSCA Inventory

All the components of this product are listed on, or are automatically included as "naturally occurring chemical substances" on, or are exempted from the requirement to be listed on, the TSCA Inventory.

Component Analysis

Component	CAS #	TSCA
p-Chloro-a,a,a-trifluorotoluene	98-56-6	Yes
Octamethylcyclotetrasiloxane	556-67-2	Yes

U.S. State Regulations

None of this product's components are listed on the state lists from CA, MA, MN, NJ or PA.
No component(s) are listed under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65).
This product does not contain detectable amounts of any chemical known to the State of California to cause cancer.

This product does not contain detectable amounts of any chemical known to the State of California to cause birth defects or other reproductive harm.

Canadian Regulations

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by the CPR.

Component Analysis

Component	CAS #	CAN
p-Chloro-a,a,a-trifluorotoluene	98-56-6	DSL
Octamethylcyclotetrasiloxane	556-67-2	DSL

Canadian WHMIS Information

B3 D2A D2B

Canadian Environmental Protection Act (CEPA)

All the components of this product are listed on, or are automatically included as “substances occurring in nature” on, or are exempted from the requirements to be listed on, the Canadian Domestic Substances List (DSL).

* * * Section 16 - Other Information * * *

Revision Information

Reformat to OSHA HazCom 29 CFR 1910.1200 adoption of GHS Revision 3.

Key/Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

Other Information

This product has been certified as a Clean Air Solvent, having passed a chemical analysis performed by California's South Coast Air Quality Management District (SCAQMD) laboratory. It complies with the Volatile Organics (VOC) requirement of 1171 – Solvent Cleaning Operations and with the exempted solvent requirements of the Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 16, because the cleaning solution is composed of branched, cyclic, or linear completely methylated siloxanes (VMS).

Disclaimer

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information or the product to which the information refers. The data contained on this sheet apply to the product as supplier to the user.

End of Sheet 82864