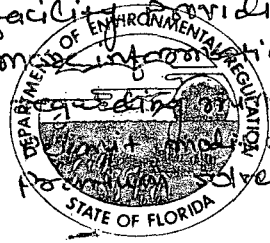


facility providing
information Florida Department of *Black Book*
 Environmental Regulation
regarding or
application for
to be reviewed.



RCRA PERMITTING -- ROUTING SLIP

Facility/Item: Safety Clean Tallahassee

Pats No: 4037-17747

Date Document Received: _____

Date Action Required: _____

Action Is: Urgent
 Routine

TO	Name	SIGNATURE	DATE
_____	JANET ASHWOOD	_____	_____
_____	LORRAINE CLARK	_____	_____
_____	ROBERT FRANQUES	_____	_____
_____	SHELTON GRAVES	_____	_____
<input checked="" type="checkbox"/>	JOHN GRIFFIN	<i>JEG</i>	<u>3-29-93</u>
_____	DIANE HUNT	_____	_____
_____	AMRISAR KAHAROEDDIN	_____	_____
_____	SATISH KASTURY	_____	_____
_____	BHEEM KOTHUR	_____	_____
_____	DOUG OUTLAW	<i>MIT</i>	<u>3-19</u>
_____	CAMILLE PLAUTZ	_____	_____
_____	RABIN PRUSTY	_____	_____
_____	MERLIN RUSSELL	_____	_____
_____	CINDY SMITH	_____	_____
_____	ROY ZIMMERMAN	_____	_____

REQUIRED ACTION & COMMENT:

RETURN TO: Michael Hatchel FOR FILING !

1 LOGGED IN



March 12, 1993

RECEIVED

MAR 17 1993

Mr. Bill Kellenberger
Hazardous Waste Section Manager
Florida Department of
Environmental Regulation
160 Government Center
Pensacola, FL 32501

HAZARDOUS WASTE
SECTION

RE: Safety-Kleen Corp. Premium Solvent, Tallahassee, Florida; FLD 982133159

Dear Mr. Kellenberger:

Safety-Kleen Corp. (SK) has recently submitted a minor modification for the above-referenced facility. This minor modification describes the new solvent which SK will be providing to its customers. We are providing this product to our customers because we believe it results in a significant waste minimization potential. The premium solvent and SK's existing parts washing solvents 105 and 140 are very similar in nature, all three being predominantly mineral spirits. All three solvents are used for the same purpose and in a similar manner. However, premium solvent has a flash point of 148°F and is therefore not ignitable. Our preliminary data from other facilities indicates that the used premium solvent is not toxicity characteristic leaching procedure (TCLP) hazardous.

SK is just beginning to market this solvent on a national basis; however, the solvent 140 has been on the market for some time. Therefore, SK is using the existing data from solvent 140 to assess the toxicity characteristic leaching procedure (TCLP) potential for premium solvent. The attached tables indicate the results of a solvent 140 analysis program.

Based on this information, SK intends to transport the premium solvent from the customer to the service center as non-hazardous. Due to the high mineral spirits content of both parts washer 105 and premium solvent, the used parts washer 105 and premium solvent will be mixed in the bulk used parts washer tank at the service center. Once the premium solvent is placed in the tank system, it will be managed as a hazardous waste. As a part of the roll-out of this new product, SK will be doing extensive customer training and waste sampling to assure that the premium solvent waste stream is not hazardous prior to being mixed in the used parts washer solvent tank.

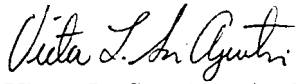
We are providing this information, along with a copy of the training video and generator certification which will be provided to our customers, for your use. The generator

13113.19/01/PREMSOL/1

Mr. Bill Kellenberger
March 12, 1993

certification will be completed by the customer during every pick-up of used premium solvent. If you have any questions, please call me at (813) 682-8094.

Sincerely,



Victor L. San Agustin, P.E.
Regional Environmental Manager
Tampa Region

chn/pjh

Enclosure(s)

c: Ed O'Connell

140 TCLP SAMPLES

Safety-Kleen conducted a controlled evaluation of 25 facilities located in North Carolina, South Carolina and Georgia which utilize solvent 140. The purpose of the testing was for the classification of spent parts washing solvent.

Prior to the original sampling, employees at the facilities received no training on waste segregation. The initial sample results show that 13 out of the 25 passed TCLP (Table 1).

Safety-Kleen's regional staff worked with employees on how to segregate hazardous waste causing contaminants from the parts cleaning units. When we tested 11 of the locations (Table 2) that failed the first time, 10 passed on the second round. One location (Clinton) did not re-test.

The one location (Deford) failed both round one and two but passed the third time.

This data indicates that after training, common contaminants, such as perchloroethylene and trichloroethane can be kept out of our solvent, keeping the material non-hazardous.

TABLE I
ROUND 1 - 140 TCLP SAMPLES

			Newton Mill	Toccoa Plant	Avalon Plant	Alan B. Shipley	Belton	Enterprise	Monarch	Cushman	Drayton	New Prospect	Gaffney Mfg.	Kingstree	Gerrish
TCLP			Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
D001	Flash Point	<= 140	> 142	> 142	> 142	> 142	> 142	> 142	> 142	> 142	> 142	> 142	> 142 < 200	> 142 < 200	> 142 < 200
D002	Corrosivity	> 2- < 12.5	5.8	6.3	4.7	6.3	6.9	6.0	5.9	6.3	6.1	5.9	NA	NA	NA
		0.0005 mm/yr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.00050	NA	< 0.00050
D003	Reactivity Water	NA	negative	negative	negative	negative	negative	negative	negative	negative	negative	negative	NA	NA	NA
	Reactivity Cyanide	250 mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.08	NA	1.00
	Reactivity Sulfide	500 mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	204	NA	50.0
Metals mg/l															
D004	Arsenic	5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
D005	Barium	100	< 5.00	12.0	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	6.97	< 5.00	< 5.00	< 5.00
D006	Cadmium	1.00	< 0.150	< 0.150	< 0.150	< 0.150	< 0.150	< 0.150	< 0.150	< 0.150	< 0.150	< 0.150	< 0.203	< 0.203	< 0.0700
D007	Chromium	5.00	< 2.50	< 2.50	< 2.50	< 2.50	< 2.50	< 2.50	< 2.50	< 2.50	< 2.50	< 2.50	< 2.50	< 2.50	< 2.50
D008	Lead	5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
D009	Mercury	0.200	< 0.0800	< 0.0800	< 0.0800	< 0.0800	< 0.0800	< 0.0800	< 0.0800	< 0.0800	< 0.0800	< 0.0800	< 0.0800	< 0.0800	< 0.0800
D010	Selenium	1.00	< 0.330	< 0.330	< 0.330	< 0.330	< 0.330	< 0.330	< 0.330	< 0.330	< 0.330	< 0.330	< 0.330	< 0.330	< 0.360
D011	Silver	5.00	< 0.110	< 0.110	< 0.110	< 0.110	< 0.110	< 0.110	< 0.110	< 0.110	< 0.110	< 0.110	< 0.579	< 0.579	< 0.0600
Volatile Organic Compounds mg/l															
D018	Benzene	0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.128	< 0.128	< 0.128	< 0.128	< 0.128	< 0.128	0.250	< 0.100	0.200
D019	Carbon Tetrachloride	0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.167	< 0.167	< 0.167	< 0.167	< 0.167	< 0.167	< 0.100	< 0.100	< 0.100
D021	Chlorobenzene	100.000	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
D022	Chloroform	6.00	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
D027	Dichlorobenzene, 1,4-	7.50	< 0.455	< 0.455	< 0.455	< 0.455	< 0.714	< 0.714	< 0.714	< 0.714	< 0.714	< 0.714	< 0.625	< 1.25	< 1.25
D028	Dichloroethane, 1,2-	0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.135	< 0.100	< 0.100

TABLE 1
ROUND 1 - 140 TCLP SAMPLES

			Newton Mill	Toccoa Plant	Avalon Plant	Alan B. Shipley	Belton	Enterprise	Monarch	Cushman	Drayton	New Prospect	Gaffney Mfg.	Kingstree	Gerrish
			Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
D029	Dichloroethylene, 1,1-	0.700	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
D035	Methyl Ethyl Ketone	200	0.880	<0.735	<0.735	<0.735	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	2.30	<0.500
D039	Tetrachloroethylene	0.700	<0.100	<0.100	0.200	0.500	0.200	<0.100	0.600	<0.100	<0.100	0.300	<0.100	<0.100	<0.100
D040	Trichloroethylene	0.500	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	0.230	<0.100
D043	Vinyl Chloride	0.200	<0.200	<0.274	<0.274	<0.274	<0.140	<0.140	<0.140	<0.140	<0.140	<0.140	<0.140	<0.140	<0.140
Base/Neutral/Acids mg/l															
D023	Cresol, o-	200	<83.0	<83.0	<83.0	<83.0	<83.0	<83.0	<83.0	<83.0	<83.0	<83.0	<44.0	<44.0	<44.0
D025	Cresol, p- & m-	200	<3730	<3730	<3730	<3730	<3730	<3730	<3730	<3730	<3730	<3730	<190	<190	<190
D030	Dinitrotoluene	0.130	<0.0600	<0.0600	<1.15	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<144	<144	<144
D032	Hexachlorobenzene	0.130	<0.250	<0.250	<0.347	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<280	<280	<280
D033	Hexachlorobutadiene	0.500	<0.250	<0.250	<0.424	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<380	<380	<380
D034	Hexachloroethane	3.00	<1.50	<1.50	<410	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<320	<320	<320
D036	Nitrobenzene	2.00	<238	<238	<238	<238	<238	<238	<238	<238	<238	<238	<124	<124	<124
D037	Pentachlorophenol	100	<26100	<26100	<26100	<26100	<26100	<26100	<26100	<26100	<26100	<26100	<1800	<1800	<1800
D038	Pyridine	5.00	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180
D041	Trichlorophenol, 2,4,5-	400	<1.00	<164	<164	<164	<164	<164	<164	<164	<164	<164	<90.0	<90.0	<90.0
D042	Trichlorophenol, 2,4,6-	2.00	<1.00	<1.00	<2.70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<118	<118	<118

TABLE 1
ROUND 1 - 140 TCLP SAMPLES

Unit:		Packaging	Deford	Honea Path	Kex Plant	Elm City	Duncan Stew	Live Oak	Golden Valley	Cedar Hill	McCormick	Gillespie	Clinton	
		D001	D001, D018, D039	D039	D039	D039	D039	D018, D039	D008	D039	D008, D040	D018	D006, D008	
TCLP														
D001	Flash Point	<= 140	140	140	>142	>142	>142	>142	>142	>142	>142	>142	>142	>142
D002	Corrosivity	>2- <12.5	5.7	5.4	6.8	6.0	6.2	6.1	6.4	6.0	6.2	6.6	NA	NA
		0.0005 mm/yr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00050	NA
D003	Reactivity Water	NA	negative	negative	negative	negative	negative	negative	negative	negative	negative	negative	NA	NA
	Reactivity Cyanide	250 mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.300	NA
	Reactivity Sulfide	500 mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	NA
Metals mg/l														
D004	Arsenic	5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
D005	Barium	100	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	42.5	14.1
D006	Cadmium	1.00	<0.150	<0.150	<0.150	<0.150	<0.150	<0.150	<0.150	<0.150	<0.150	<0.150	<0.0700	1.02
D007	Chromium	5.00	<2.50	<2.50	<2.50	<2.50	<2.50	<2.50	<2.50	<2.50	<2.50	<2.50	<2.50	<2.50
D008	Lead	5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	10.2	<5.00	19.6	<5.00	7.12
D009	Mercury	0.200	<0.0800	<0.0800	<0.0800	<0.0800	<0.0800	<0.0800	<0.0800	<0.0800	<0.0800	<0.0800	<0.0800	<0.0800
D010	Selenium	1.00	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.360	<0.360
D011	Silver	5.00	<0.110	<0.110	<0.110	<0.110	<0.110	<0.110	<0.110	<0.110	<0.110	<0.110	<0.0600	<0.0600
Volatile Organic Compounds mg/l														
D018	Benzene	0.500	<0.100	7.00	<0.128	<0.128	<0.100	<0.100	2.40	<0.167	<0.167	<0.152	0.910	<0.100
D019	Carbon Tetrachloride	0.500	<0.167	<2.50	<0.167	<0.167	<0.100	<0.100	<0.100	<0.100	<0.500	<0.500	<0.100	<0.100
D021	Chlorobenzene	100.000	<0.100	<2.50	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
D022	Chloroform	6.00	<0.100	<2.50	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
D027	Dichlorobenzene, 1,4-	7.50	<0.714	<2.50	<0.714	<0.714	<0.455	<0.455	<0.455	<0.100	<0.100	<0.100	<0.417	<1.25

TABLE I
ROUND 1 - 140 TCLP SAMPLES

Limit:			Packaging	Deford	Honca Path	Kex Plant	Elin City	Duncan Stew	Live Oak	Golden Valley	Cedar Hill	McCormick	Gillespie	Clinton
			D001	D001, D018, D039	D039	D039	D039	D039	D039	D018, D039	D008	D039	D008, D040	D018
D028	Dichloroethane, 1,2-	0.500	<0.100	<2.50	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
D029	Dichloroethylene, 1,1-	0.700	<0.100	<2.50	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
D035	Methyl Ethyl Ketone	200	<0.500	<12.5	<0.500	<0.500	<0.735	<0.735	<0.735	<0.500	<0.500	<0.500	<1.06	<0.500
D039	Tetrachloroethylene	0.700	<0.100	47.0	1.60	0.700	1.30	1.10	0.800	<0.100	1.27	<0.100	<0.100	0.360
D040	Trichloroethylene	0.500	<0.100	<2.50	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	2.93	<0.100	<0.100
D043	Vinyl Chloride	0.200	<0.140	<3.50	<0.140	<0.140	<0.274	<0.274	<0.274	<0.200	<0.200	<0.200	<0.179	<0.140
Base/Neutral/Acids mg/l														
D023	Cresol, o-	200	<83.0	<83.0	<83.0	<83.0	<83.0	<83.0	<83.0	<44.0	<44.0	<44.0	<44.0	<44.0
D025	Cresol, p- & m-	200	<3730	<3730	<3730	<3730	<3730	<3730	<3730	<1900	<1900	<1900	<190	<190
D030	Dinitrotoluene	0.130	<0.0600	<0.0600	<0.0600	<0.0600	<0.0968	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<144	<144
D032	Hexachlorobenzene	0.130	<0.250	<0.250	<0.250	<0.250	<0.347	<0.250	<0.250	<0.0600	<0.0600	<0.0600	<280	<280
D033	Hexachlorobutadiene	0.500	<0.250	<0.250	<0.250	<0.250	<0.424	<0.250	<0.250	<1.50	<1.50	<1.50	<380	<380
D034	Hexachloroethane	3.00	<1.50	<1.50	<1.50	<410	<1.92	<1.50	<1.50	<1.50	<1.50	<1.50	<320	<320
D036	Nitrobenzene	2.00	<238	<238	<238	<238	<238	<238	<238	<124	<124	<124	<124	<124
D037	Pentachlorophenol	100	<26100	<26100	<26100	<26100	<26100	<26100	<26100	<1800	<1800	<1800	<1800	<1800
D038	Pyridine	5.00	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180
D041	Trichlorophenol, 2,4,5-	400	<164	<164	<164	<164	<164	<164	<164	<200	<90.0	<90.0	<90.0	<90.0
D042	Trichlorophenol, 2,4,6-	2.00	<1.00	<1.00	<1.00	<1.00	<2.70	<1.00	<1.00	<1.00	<1.00	<1.00	<118	<118

NOTE:

▨ = Parameters detected above detection limits

TABLE 2

ROUNDS 2 AND 3 - 140 TCLP SAMPLES

			Packaging	Deford	Deford	Honea Path	Kex Plant	Elm City	Duncan Stew	Live Oak	Golden Valley	Cedar Hill	McCormick	Gillespie	Clinton
Limit:			Pass	D039	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Did Not Re-Test
TCLP															
D001	Flash Point	<=140	145	146	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Metals mg/l															
D004	Arsenic	5.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.00	NA	
D005	Barium	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.00	NA	
D006	Cadmium	1.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.150	NA	
D007	Chromium	5.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.50	NA	
D008	Lead	5.00	NA	NA	NA	NA	NA	NA	NA	NA	<5.00	NA	<5.00	NA	
D009	Mercury	0.200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0800	NA	
D010	Selenium	1.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.330	NA	
D011	Silver	5.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.110	NA	
Volatile Organic Compounds mg/l															
D018	Benzene	0.500	NA	<0.100	<0.100	0.450	<0.100	<0.100	<0.100	<0.100	NA	0.330	0.360	0.180	
D019	Carbon Tetrachloride	0.500	NA	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	NA	<0.100	<0.100	<0.100	
D021	Chlorobenzene	100.000	NA	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	NA	<0.100	<0.100	<0.100	
D022	Chloroform	6.00	NA	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	NA	<0.100	<0.100	<0.100	
D027	Dichlorobenzene, 1,4-	7.50	NA	<5.00	<0.100	<1.25	<1.25	<1.25	<1.25	<1.25	NA	<1.25	<1.25	<0.100	
D028	Dichloroethane, 1,2-	0.500	NA	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	NA	<0.100	<0.100	<0.100	
D029	Dichloroethylene, 1,1-	0.700	NA	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	NA	<0.100	<0.100	<0.100	
D035	Methyl Ethyl Ketone	200	NA	<0.633	<0.500	1.02	<0.500	0.770	0.710	<0.500	NA	<0.500	3.90	<0.500	
D039	Tetrachloroethylene	0.700	NA	0.830	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	NA	0.100	<0.100	0.200	
D040	Trichloroethylene	0.500	NA	0.150	<0.100	<0.100	<0.100	0.120	0.100	0.260	NA	<0.100	<0.100	<0.100	
D043	Vinyl Chloride	0.200	NA	<0.140	<0.140	<0.140	<0.140	<0.140	<0.140	<0.140	NA	<0.140	<0.140	<0.140	



Material Safety Data Sheet

**SAFETY-KLEEN
PREMIUM SOLVENT**

Part Number: 6605

Dear Safety-Kleen Customer,

At Safety-Kleen Corp., supplying material safety data sheets is more than a requirement to us; it is a commitment to our customers and their employees.

The material safety data sheet is a valuable source of product information and should be a part of your hazard communication program. With this in mind, we are providing you, our valued customer, this important product information.

Thank you for showing your concern for the environment by choosing Safety-Kleen Corp. products and services.

Sincerely,

Your friends at Safety-Kleen Corp.



SAFETY-KLEEN PREMIUM SOLVENT

MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

SECTION 3 – EMERGENCY AND FIRST AID PROCEDURES

- EYES:** For direct contact, flush eyes with water for 15 minutes lifting upper and lower lids occasionally. If irritation or redness from exposure to vapor or mist develops, move victim away from exposure into fresh air. Consult physician if irritation or pain persists.
- SKIN:** Remove contaminated clothing and shoes. Wash skin twice with soap and water. Consult physician if irritation or pain persists.
- INHALATION:**
(Breathing) Remove to fresh air immediately. Use oxygen if there is difficulty breathing or artificial respiration if breathing has stopped. Do not leave victim unattended. Seek immediate medical attention if necessary.
- INGESTION:**
(Swallowing) Seek immediate medical attention. Do NOT induce vomiting. If spontaneous vomiting occurs, keep head below hips to avoid aspiration (into lungs).
- SPECIAL NOTE TO PHYSICIAN:** Treat symptomatically and supportively. Administration of gastric lavage, if warranted, should be performed by qualified medical personnel. Contact Rush Poison Control Center (see Section 1) for additional medical information.

SECTION 4 – HEALTH HAZARD DATA AND TOXICOLOGICAL PROPERTIES

PRIMARY ROUTES OF EXPOSURE: Eye and skin contact; inhalation, ingestion.

EXPOSURE LIMITS: See Section 2.

SIGNS AND SYMPTOMS OF EXPOSURE

ACUTE: **Eyes:** Contact with liquid or exposure to vapors may cause mild to moderate irritation with watering, stinging, or redness.

Skin: Contact with liquid or exposure to vapors tends to remove skin oils, possibly leading to redness, burning, drying and cracking, and damage. No significant skin absorption hazard.

Inhalation (Breathing): High concentrations of vapor or mist may be irritating to the respiratory tract; may cause nausea, vomiting, coughing with blood, difficulty breathing, lung congestion, and heart attack. High concentrations of vapor or mist may cause headaches, dizziness, incoordination, numbness, unconsciousness, seizures, and other central nervous system effects.

Ingestion (Swallowing): Low order of acute oral toxicity. May cause irritation of the throat, nausea, vomiting, myocardial injury with arrhythmias (irregular heartbeats), and symptoms of central nervous system depression as listed for ACUTE Inhalation. Aspiration into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death.

CHRONIC: Prolonged or repeated skin contact may cause drying and cracking or dermatitis.

MEDICAL CONDITIONS

AGGRAVATED BY EXPOSURE: Individuals with pre-existing lung, cardiac, central nervous system, or skin disorders may have increased susceptibility to the effects of exposure.

CARCINOGENICITY: Not applicable.

Also see Section 9.

OTHER POTENTIAL HEALTH HAZARDS:

The following information is required by Canadian WHMIS regulations. Irritancy is covered in Signs and Symptoms of Exposure in Section 4. There is no known human sensitization, toxicologically synergistic product, reproductive toxicity, mutagenicity, or teratogenicity associated with this material.

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SECTION 5 -- FIRE AND EXPLOSION HAZARD DATA

EMERGENCY RESPONSE GUIDE NUMBER:	27 Reference <i>Emergency Response Guidebook</i> (DOT P 5800.5)
FIRE AND EXPLOSION HAZARDS:	Vapor explosion hazard may occur indoors, outdoors, or in sewers. Decomposition and combustion products may be toxic. Heated containers may rupture, explode, or be thrown into the air. Vapors are heavier than air and may travel great distances to ignition source and flash back. Not sensitive to mechanical impact. Material may be sensitive to static discharge, which could result in fire or explosion.
FIRE FIGHTING PROCEDURES:	NFPA 704 Rating 0-2-0 (Health-Fire-Reactivity) Keep storage containers cool with water spray. Positive-pressure, self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide limited protection.
EXTINGUISHING MEDIA:	Carbon dioxide, regular foam, dry chemical, or water spray.
CONDITIONS OF FLAMMABILITY:	Heat, sparks, or flame.
FLASH POINT:	150°F (66°C) (minimum) Tag Closed Cup
AUTOIGNITION TEMPERATURE:	441°F (227°C)
FLAMMABLE LIMITS IN AIR:	LOWER: 0.6 Vol. % UPPER: 7.0 Vol. %
HAZARDOUS COMBUSTION PRODUCTS:	Burning may produce carbon monoxide.

SECTION 6 -- REACTIVITY DATA

STABILITY:	Stable under normal temperatures and pressures, and not reactive with water.
INCOMPATIBILITY (MATERIALS AND CONDITIONS TO AVOID):	Acids, alkalis, oxidizing agents, chlorines, or selected amines may cause a violent reaction. Avoid heat, sparks, or flame.
HAZARDOUS POLYMERIZATION:	Not known to occur under normal temperatures and pressures.
HAZARDOUS DECOMPOSITION PRODUCTS:	None under normal temperatures and pressures.

SECTION 7 -- PREVENTIVE MEASURES

PRECAUTIONS FOR SAFE USE AND HANDLING

HANDLING PRECAUTIONS:	Keep away from heat, sparks, or flame. Use non-sparking tools and explosion-proof equipment. Metal containers, including tank cars and trucks, should be grounded and bonded when material is transferred. Avoid contact with eyes, skin, clothing, or shoes. Use in well ventilated area and avoid breathing vapor or mist.
PERSONAL HYGIENE:	Use good personal hygiene. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco products. Clean contaminated clothing, shoes, and protective equipment before reuse. Discard contaminated clothing, shoes, or protective equipment if they cannot be thoroughly cleaned.
SHIPPING AND STORING PRECAUTIONS:	Keep container tightly closed when not in use and during transport. Do not pressurize, cut, heat, weld, grind, or expose containers to flame or other source of ignition. Empty product containers may contain product residue. See Section 9 for Packing Group information.

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SPILL PROCEDURES: Remove all ignition sources. Stop leak if you can do it without risk. Wear protective equipment specified in Section 7, CONTROL MEASURES. Ventilate area and avoid breathing vapor or mist. Water spray may reduce vapor, but it may not prevent ignition in closed spaces. For large spills, isolate area and deny entry; dike far ahead of liquid spill for later disposal. Contain away from surface waters and sewers. If possible, contain as a liquid for possible re-refining or sorb with compatible sorbent material and shovel with a non-sparking tool into closable container for disposal. See *Emergency Response Guidebook* (DOT P 5800.5) Guide Number 27 for more information.

WASTE DISPOSAL METHODS: Dispose in accordance with federal, state, provincial, and local regulations. Contact Safety-Kleen regarding recycling or proper disposal.

CONTROL MEASURES

EYE PROTECTION: Where there is likelihood of eye contact, wear chemical goggles and faceshield. Do NOT wear contact lenses.

PROTECTIVE GLOVES: Use Nitrile, Viton[®], or equivalent gloves to prevent contact with skin. Do NOT use Butyl rubber, natural rubber, or equivalent gloves.

RESPIRATORY PROTECTION: Use NIOSH/MSHA-approved respiratory protective equipment when concentration of vapor or mist exceeds applicable exposure limit. A self-contained breathing apparatus (SCBA) and full protective equipment are required for large spills or fire emergencies. Selection and use of respiratory protective equipment should be in accordance in the U.S.A. with OSHA General Industry Standard 29 CFR 1910.134 or in Canada with CSA Standard Z94.4-M1982.

ENGINEERING CONTROLS: Provide process enclosure or local ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where explosive mixtures may be present, systems safe for such locations should be used.

OTHER PROTECTIVE EQUIPMENT: Where spills and splashes are possible, wear appropriate solvent-resistant boots, apron, or other protective clothing. Clean water should be available in work areas for flushing the eyes and skin.

SECTION 8 -- PHYSICAL DATA

PHYSICAL STATE, APPEARANCE AND ODOR: Liquid, clear or green, with characteristic hydrocarbon odor.

ODOR THRESHOLD: Not available.

SPECIFIC GRAVITY: 0.78 to 0.81 (60°/60°F) (15.6°/15.6°C) (water = 1)

DENSITY: 6.5 to 6.8 lb/US gal (779 to 811 g/l)

VAPOR DENSITY: 4.9 (air = 1) (approximately)

VAPOR PRESSURE: 2 mm Hg at 68°F (20°C)

BOILING POINT: 370° to 405°F (188° to 207°C)

FREEZING POINT: Not available.

pH: Not applicable.

VOLATILE ORGANIC COMPOUNDS: 100 WT %; 6.49 to 6.76 lb/US gal; 779 to 811 g/l
(US EPA DEFINITION)

EVAPORATION RATE: 0.1 (butyl acetate = 1)

SOLUBILITY IN WATER: Slight.

GENERATOR CERTIFICATION

Generator warrants and represents that the materials provided Safety-Kleen Corp. hereunder have not been used in such a way or mixed, combined, or otherwise blended in any quantity with materials containing polychlorinated biphenyls (PCB) or any other material which would render it as hazardous under applicable laws, including but not limited to 40 CFR Part 261, or which would lower the flash point of the material. Generator further warrants that all personnel involved in direct use of parts cleaning equipment have viewed and understand the *Waste Minimization Program* video tape produced by Safety-Kleen that exemplifies possible sources of contamination from, but not limited to: Brake sprays, gasoline, cold parts cleaner, carburetor sprays, brake fluid, paint thinner, acids and corrosives. Generator agrees to indemnify and hold Safety-Kleen Corp. harmless for any damages, assessments, penalties, costs, attorney's fees, etc., arising out of, or in any way related to a breach of the above warranty by the generator.

Account Name: _____

Customer Name: _____

Customer No.: _____

Customer Signature Date

Safety-Kleen Rep. Date