SAFETY DATA SHEET

1. Identification

Product number Product identifier Revision date	KK0050 GLASS & MASONRY CLEANER 340G 03-26-2015
Company information	Kel Kem Ltd. 1333 Cornwall Road Oakville, Ontario L6J 7T5 Canada
Company phone	1-905-829-5888
Emergency telephone (24hrs)	CANUTEC, 1-613-996-6666 (Collect)

Version #	02
Supersedes date	03-26-2015
Recommended use	Cleaner
Recommended restrictions	None known.

2. Hazard(s) identification

Physical hazards	Flammable aerosols	Category 1
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		



Signal word	Danger
Hazard statement	Extremely flammable aerosol. Causes skin irritation. Causes serious eye irritation.
Precautionary statement	
Prevention	Keep away from heat/sparks/open flames/hot surfaces No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Wash thoroughly after handling. Wear protective gloves. Wear eye/face protection.
Response	If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Specific treatment (see this label). If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Storage	Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
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	%
Anhydrous Sodium Carbonate		497-19-8	2.5 - 10
Cocoyl Diethanolamide		68603-42-9	2.5 - 10

Chemical name	Common name and synonyms	CAS number	%
Benzene, 1,1'-oxybis-, Tetrapropylene Derivatives, Sulfonated, Sodium Salts		119345-04-9	1 - 2.5
Dipropylene Glycol Methyl Ether		34590-94-8	1 - 2.5
Potassium Hydroxide		1310-58-3	1 - 2.5
Diethanolamine		111-42-2	0.1 - 1
Other components below reportable leve	ls		80 - 90

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures	
Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing. Wash with plenty of soap and water. 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	In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
5. Fire-fighting measures	
Suitable extinguishing media	Water fog. 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	Contents under pressure. Pressurized container may explode when exposed to heat or flame. 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.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire-fighting equipment/instructions	Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.
General fire hazards	Extremely flammable aerosol.
6 Accidental release meas	sures

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Remove all possible sources of ignition in the surrounding area. Wear appropriate protective equipment and clothing during clean-up. 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	Refer to attached safety data sheets and/or instructions for use. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.
Environmental precautions	Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.
7. Handling and storage	
Precautions for safe handling	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. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Avoid contact with eyes, skin, and clothing. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage,	For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code". Level 1 Aerosol.
including any incompatibilities	Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Refrigeration recommended. 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	
Dipropylene Glycol Methyl Ether (CAS 34590-94-8)	PEL	600 mg/m3	
, ,		100 ppm	
US. ACGIH Threshold Limit Values			
Components	Туре	Value	Form
Diethanolamine (CAS 111-42-2)	TWA	1 mg/m3	Inhalable fraction and vapor.
Dipropylene Glycol Methyl Ether (CAS 34590-94-8)	STEL	150 ppm	
	TWA	100 ppm	
Potassium Hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m3	
US. NIOSH: Pocket Guide to Chemica	al Hazards		
Components	Туре	Value	
Diethanolamine (CAS 111-42-2)	TWA	15 mg/m3	
		3 ppm	
Dipropylene Glycol Methyl Ether (CAS 34590-94-8)	STEL	900 mg/m3	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Туре	Value
		150 ppm
	TWA	600 mg/m3
		100 ppm
Potassium Hydroxide (CAS 1310-58-3)	TWA	2 mg/m3
ological limit values	No biological exposure limits	s noted for the ingredient(s).
kposure guidelines		
US - California OELs: Skin o	lesignation	
Diethanolamine (CAS 11 Dipropylene Glycol Methy US - Tennesse OELs: Skin o	I Ether (CAS 34590-94-8)	Can be absorbed through the skin. Can be absorbed through the skin.
Dipropylene Glycol Methy US ACGIH Threshold Limit	l Ether (CAS 34590-94-8) /alues: Skin designation	Can be absorbed through the skin.
Diethanolamine (CAS 11 Dipropylene Glycol Methy US NIOSH Pocket Guide to	l Ether (CAS 34590-94-8)	Can be absorbed through the skin. Can be absorbed through the skin. ignation
Dipropylene Glycol Methy US. OSHA Table Z-1 Limits	/l Ether (CAS 34590-94-8) f or Air Contaminants (29 CF l	Can be absorbed through the skin. R 1910.1000)
Dipropylene Glycol Methy	l Ether (CAS 34590-94-8)	Can be absorbed through the skin.
opropriate engineering ontrols	should be matched to condit or other engineering controls exposure limits have not bee	pically 10 air changes per hour) should be used. Ventilation rates tions. If applicable, use process enclosures, local exhaust ventilation s to maintain airborne levels below recommended exposure limits. If en established, maintain airborne levels to an acceptable level. Eye cy shower must be available when handling this product.
dividual protection measures,	such as personal protective	equipment
Eye/face protection	Wear safety glasses with sid	le shields (or goggles).
Hand protection	Wear appropriate chemical I	resistant gloves.
Skin protection		
Other	Wear appropriate chemical I	resistant clothing.
Respiratory protection	If permissible levels are exce air-supplied respirator.	eeded use NIOSH mechanical filter / organic vapor cartridge or an
Thermal hazards	Wear appropriate thermal pr	otective clothing, when necessary.
eneral hygiene onsiderations	after handling the material a	Always observe good personal hygiene measures, such as washing nd before eating, drinking, and/or smoking. Routinely wash work oment to remove contaminants.

9. Physical and chemical properties

Appearance	
Physical state	Liquid. Form
Aerosol. Color	Not
available.	
Odor	Not available.
Odor threshold	Not available.
рН	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	212 °F (100 °C) estimated
Flash point	-245.2 °F (-154.0 °C) Propellent estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or expl	osive limits
Flammability limit - lower (%)	Not available.

Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Flammability class	Flammable IB estimated
Heat of combustion (NFPA 30B)	2.14 kJ/g estimated
Specific gravity	1.052 estimated

10. Stability and reactivity

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	Hazardous polymerization does not occur.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Expected to be a low ingestion hazard.
Inhalation	No adverse effects due to inhalation are expected.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Symptoms related to the physical, chemical and toxicological characteristics	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		
Components	Species	Test Results
Anhydrous Sodium Carbon	ate (CAS 497-19-8)	
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Guinea pig	800 mg/m3, 2 Hours
	Mouse	1200 mg/m3, 2 Hours
	Rat	2300 mg/m3, 2 Hours
Oral		
LD50	Rat	2800 mg/kg

Components	Species	Test Results
enzene, 1,1'-oxybis-, Tetrapropyl	ene Derivatives, Sulfonated, Sodiun	n Salts (CAS 119345-04-9)
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg, 24 Hours
	Rat	> 2000 mg/kg, 24 Hours
iethanolamine (CAS 111-42-2)		
Acute		
Oral		
LD50	Rat	1100 mg/kg
ipropylene Glycol Methyl Ether (CAS 34590-94-8)	
Acute		
Dermal		
LD50	Rabbit	9510 mg/kg, 24 Hours
		10 ml/kg, 24 Hours
	Rat	> 19020 mg/kg, Hours
		> 20 ml/kg, Hours
Inhalation		,
LC50	Rat	> 553 ppm, 8 Hours
		> 275 ppm, 7 Hours
Oral		
LD50	Dog	7.5 ml/kg
2000	-	-
	Rat	5.4 ml/kg
Potassium Hydroxide (CAS 1310-5	58-3)	
Acute		
Oral	Det	333 mg/kg
LD50	Rat	555 Hig/kg
* Estimates for product may be	e based on additional component da	ata not shown.
kin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye rritation	Causes serious eye irritation.	
Respiratory or skin sensitizatior	1	
Respiratory sensitization	Not available.	
Skin sensitization	This product is not expected to ca	use skin sensitization.
Germ cell mutagenicity	No data available to indicate prode mutagenic or genotoxic.	uct or any components present at greater than 0.1% are
Carcinogenicity	Risk of cancer cannot be excluded	d with prolonged exposure.
IARC Monographs. Overall I	Evaluation of Carcinogenicity	
Cocoyl Diethanolamide (C Diethanolamine (CAS 11 OSHA Specifically Regulate		 Possibly carcinogenic to humans. Possibly carcinogenic to humans. 1050)
Not listed.		
Reproductive toxicity	This product is not expected to ca	use reproductive or developmental effects.
pecific target organ toxicity - ingle exposure	Not classified.	
Specific target organ toxicity - epeated exposure	Not classified.	
Aspiration hazard	Not available.	
Chronic effects	Prolonged exposure may cause cl	aronic offects

12. Ecological information

Ecotoxicity		The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.		
Components		Species	Test Results	
Anhydrous Sodium Carbona	te (CAS 497-19-8	3)		
Aquatic				
Crustacea	EC50	Daphnia	265 mg/L, 48 Hours	
		Water flea (Ceriodaphnia dubia)	156.6 - 298.9 mg/l, 48 hours	
Fish	LC50	Bluegill (Lepomis macrochirus)	300 mg/l, 96 hours	
Diethanolamine (CAS 111-42	2-2)			
Aquatic				
Algae	IC50	Algae	7.8 mg/L, 72 Hours	
Crustacea	EC50	Daphnia	55 mg/L, 48 Hours	
Fish	LC50	Fathead minnow (Pimephales promelas)	100 mg/l, 96 hours	
Potassium Hydroxide (CAS 2	1310-58-3)			
Aquatic				
Fish	LC50	Western mosquitofish (Gambusia affinis)	80 mg/l, 96 hours	
* Estimates for product may	be based on addi	tional component data not shown.		
Persistence and degradability	No data is ava	ailable on the degradability of this product.		
Bioaccumulative potential	No data availa	able.		
Partition coefficient n-octa	nol / water (log l	-		
Diethanolamine	No data availa	-1.43		
Mobility in soil	No data availa			
Other adverse effects		erse environmental effects (e.g. ozone depl ocrine disruption, global warming potential)		
13. Disposal consideration	ons			
Disposal instructions	under pressur	claim or dispose in sealed containers at lic e. Do not puncture, incinerate or crush. Dis		

	under pressure. Do not puncture, incinerate or crush. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
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. Do not re-use empty containers.

14. Transport information

DOT

-		
	UN number	UN1950
	UN proper shipping name	Aerosols, flammable, corrosive
	Transport hazard class(es)	
	Class	2.1
	Subsidiary risk	8
	Label(s)	2.1, 8
	Packing group	Not applicable.
	Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
	Special provisions	A34
	Packaging exceptions	306
	Packaging non bulk	None
	Packaging bulk	None

This product meets the exception requirements of section 173.306 as a limited quantity and may be shipped as a limited quantity. Until 12/31/2020, the "Consumer Commodity - ORM-D" marking may still be used in place of the new limited quantity diamond mark for packages of UN 1950 Aerosols. Limited quantities require the limited quantity diamond mark on cartons after 12/31/20 and may be used now in place of the "Consumer Commodity ORM-D" marking and both may be displayed concurrently.

ΙΑΤΑ

ΙΑΤΑ	
UN number	UN1950
UN proper shipping name	Aerosols, flammable, containing substances in Class 8, Packing Group III
Transport hazard class(es)	
Class	2.1
Subsidiary risk	8
Label(s) Packing	2.1, 8
group Environmental	Not applicable.
hazards ERG Code	No.
	10C
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.
Packaging Exceptions	LTD QTY
IMDG	
UN number	UN1950
UN proper shipping name	AEROSOLS
Transport hazard class(es)	
Class	2.1
Subsidiary risk	8
Label(s) Packing	2,8
group Environmental	Not applicable.
hazards	Not applicable.
	A L
Marine pollutant	No.
EmS	F-D,S-U
	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
Packaging Exceptions	LTD QTY
Transport in bulk according to Annex II of MARPOL 73/78 and	Not applicable.
the IBC Code	
DOT	
FLAMMABLE GAS 2	CORROSIVE 8
IATA; IMDG	



15. Regulatory information

US federal regulations	This product is a "Hazardous Standard, 29 CFR 1910.120 All components are on the U	0.	ed by the OSHA Hazard Communication
TSCA Section 12(b) Export	Notification (40 CFR 707, Sul		
Not regulated. CERCLA Hazardous Substa		. ,	
Diethanolamine (CAS 11 Potassium Hydroxide (CA SARA 304 Emergency relea	AS 1310-58-3)	Listed. Listed.	
Not regulated.	d Substances (29 CFR 1910.	1001-1050)	
Not listed.			
Superfund Amendments and Re	authorization Act of 1986 (S	ARA)	
Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No	,	
SARA 302 Extremely hazard	dous substance		
Not listed.			
SARA 311/312 Hazardous chemical	No		
SARA 313 (TRI reporting) Chemical name		CAS number	% by wt.
Diethanolamine		111-42-2	0.1 - 1
Other federal regulations			
Clean Air Act (CAA) Sectior	n 112 Hazardous Air Pollutan	ts (HAPs) List	
Diethanolamine (CAS 11 Clean Air Act (CAA) Sectior	1-42-2) n 112(r) Accidental Release P	revention (40 CFR	68.130)
Not regulated.			
Safe Drinking Water Act (SDWA)	Not regulated.		
US state regulations			
US. Massachusetts RTK - S	ubstance List		
Potassium Hydroxide (CA	yl Ether (CAS 34590-94-8) AS 1310-58-3)		
-	I Community Right-to-Know	Act	
Diethanolamine (CAS 111-42-2) Dipropylene Glycol Methyl Ether (CAS 34590-94-8) Potassium Hydroxide (CAS 1310-58-3) US. Pennsylvania Worker and Community Right-to-Know Law			
Potassium Hydroxide (CA	yl Ether (CAS 34590-94-8)		
US. Rhode Island RTK	4.40.0		
Diethanolamine (CAS 11 Potassium Hydroxide (CA	AS 1310-58-3)		
US. California Proposition 6 WARNING: This product	contains a chemical known to	the State of Californi	a to cause cancer.
US - California Proposit	tion 65 - CRT: Listed date/Ca	rcinogenic substan	ce
Cocoyl Diethanolam Diethanolamine (CA	ide (CAS 68603-42-9) S 111-42-2)	Listed: June 22, 2 Listed: June 22, 2	

International Inventories		
Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	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	03-26-2015
Revision date	03-26-2015
Version #	02
Disclaimer	Notice to the Reader: The information is provided in good faith and is correct to the best of Kel Kem Ltd.'s knowledge as of the date hereof and is designed to assist our customers; however Kel Kem Ltd. makes no representation as to its completeness or accuracy. Final determination of suitability of any material is the sole responsibility of the user. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Kel Kem Ltd. disclaims all expressed or implied warranties or representations.