

SAFETY DATA SHEET

1. Identification

Product identifier	MAQUAT® MC1416-80	
Other means of identification		
Product Code	863301	
Product registration number	10324-9	
Recommended use	FIFRA Regulated Manufacturing Use Product (Quat Active)	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier	/Distributor information	
Manufacturer		
Company name	Mason Chemical Company	
Address	9075 Centre Pointe Drive	
	Suite 400	
	West Chester, OH 45069 United States	
Telephone	(513) 326-0600	
relephone	1-800-707-4568	
E-mail	sdsinfo@pilotchemical.com	
Emergency phone number	CHEMTREC International: 1-703-527-3887	
CHEMTREC USA:	1-800-424-9300	

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 3
Health hazards	Acute toxicity, oral	Category 4
	Acute toxicity, dermal	Category 4
	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1
OSHA defined hazards	Not classified.	

Label elements

Signal word

Hazard statement



Danger

Flammable liquid and vapor. Harmful if swallowed. Harmful in contact with skin. Causes severe skin burns and eye damage. Causes serious eye damage. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Precautionary statement Prevention

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/vapors. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response	Rinse mouth. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. In case of fire: Use appropriate media to extinguish. Collect spillage.
Storage	Store in a well-ventilated place. Keep cool. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Alkyl Dimethyl Benzyl Ammonium Chloride		68391-01-5 (ALT 53516-76-0)	75 - < 85
Isopropanol (2-propanol)		67-63-0	9 - < 20
Other components below reportable levels			10 - < 20

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. 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. Call a physician or poison control center immediately.
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.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
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. Chemical 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. 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. Foam. Dry chemical powder. Carbon dioxide (CO2).
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. 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.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

Flammable liquid and vapor.

6. Accidental release measures

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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/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. 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. This product is miscible in water. 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.	
	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.	
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.	
7. Handling and storage		
Precautions for safe handling	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. 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 breathe mist/vapors. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.	
Conditions for safe storage, including any incompatibilities	Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. 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		

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

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

Components	Туре	Value	
Isopropanol (2-propanol) (CAS 67-63-0)	PEL	980 mg/m3	
		400 ppm	
US. ACGIH Threshold Limit Value	es		
Components	Туре	Value	
Isopropanol (2-propanol) (CAS 67-63-0)	STEL	400 ppm	
	TWA	200 ppm	
US. NIOSH: Pocket Guide to Che	mical Hazards		
Components	Туре	Value	
Isopropanol (2-propanol) (CAS 67-63-0)	STEL	1225 mg/m3	
		500 ppm	
	TWA	980 mg/m3	
		400 ppm	

ACGIH Biological Exposu Components	Value	Determinant	Specimen	Sampling Time
Isopropanol (2-propanol) (CAS 67-63-0)	40 mg/l	Acetone	Urine	*
* - For sampling details, ple	ease see the source	document.		
ontrols	Ventilation rate exhaust ventila exposure limits	s should be matched to tion, or other engineeri . If exposure limits hav	o conditions. If ap ng controls to ma e not been estab	Good general ventilation should be used. oplicable, use process enclosures, local aintain airborne levels below recommended lished, maintain airborne levels to an nower must be available when handling this
ndividual protection measure	es, such as person	al protective equipme	ent	
Eye/face protection	=	asses with side shields		a face shield.
Skin protection Hand protection	Wear appropria	ate chemical resistant g	loves.	
Other	Wear appropria	ate chemical resistant c	lothing.	
Respiratory protection	limits (where a		ptable level (in c	ntrations below recommended exposure ountries where exposure limits have not rn.
Thermal hazards	Wear appropria	ate thermal protective c	lothing, when ne	cessary.
eneral hygiene onsiderations	hygiene measu	res, such as washing a	after handling the	drink. Always observe good personal material and before eating, drinking, and/o equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Clear.
Physical state	Liquid.
Form	Liquid.
Color	Clear, colorless to light straw
Odor	Not available.
Odor threshold	Not available.
рН	≥ 6 - ≤ 8 (1% aq. soln.)
Melting point/freezing point	Not available.
Initial boiling point and boiling	Not available.
range	
Flash point	87.8 °F (31.0 °C) Closed Cup
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or exp	losive limits
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)	Miscible
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	1012 cSt (25°C)
Other information	
Explosive properties	Not explosive.

Oxidizing properties	Not oxidizing.
Specific gravity	0.941

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 heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the decomposition temperature. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Acids. Strong oxidizing agents. Chlorine. Isocyanates.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns. Harmful in contact with skin.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns. Harmful if swallowed.
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity

Harmful in contact with skin. Harmful if swallowed.

Product	Species	Test Results	
MAQUAT® MC1416-80			
<u>Acute</u>			
Dermal			
LD50	Rabbit	1800 mg/kg, 24 h	
Oral			
LD50	Rat	455 mg/kg, 14 d	
Components	Species	Test Results	
Alkyl Dimethyl Benzyl Amm	onium Chloride		
<u>Acute</u>			
Dermal			
Liquid			
LD50	Rabbit	3413 mg/kg	
LD50	Rat	930 mg/kg	
Oral			
Liquid			
LD50	Rat	795 mg/kg	
		304.5 mg/kg, 14 d	
Isopropanol (2-propanol) (C	AS 67-63-0)		
Acute			
Dermal			
LD50		13900 mg/kg bw/day	
Inhalation			
LC50		25000 mg/m³	
	Rat	51.05 mg/l, 8 Hours	
Oral			
LD50		5840 mg/kg bw/day	

Components	Species	Test Results
	Rat	4710 mg/kg
Skin corrosion/irritation	Causes severe skin burns	and eye damage.
Serious eye damage/eye irritation	Causes serious eye dama	je.
Respiratory or skin sensitizatio	n	
Respiratory sensitization	Not a respiratory sensitizer	
Skin sensitization	This product is not expected	d to cause skin sensitization.
Germ cell mutagenicity	No data available to indica mutagenic or genotoxic.	te product or any components present at greater than 0.1% are
Carcinogenicity	Not classifiable as to carcin	nogenicity to humans.
IARC Monographs. Overall	Evaluation of Carcinogenic	ity
Not listed. OSHA Specifically Regulate Not listed. US. National Toxicology Pre	•	
Not listed.	ogram (NTP) Report on Car	cinogens
Reproductive toxicity	This product is not expecte	d to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Not an aspiration hazard.	
Chronic effects	Prolonged inhalation may b	pe harmful.

12. Ecological information

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

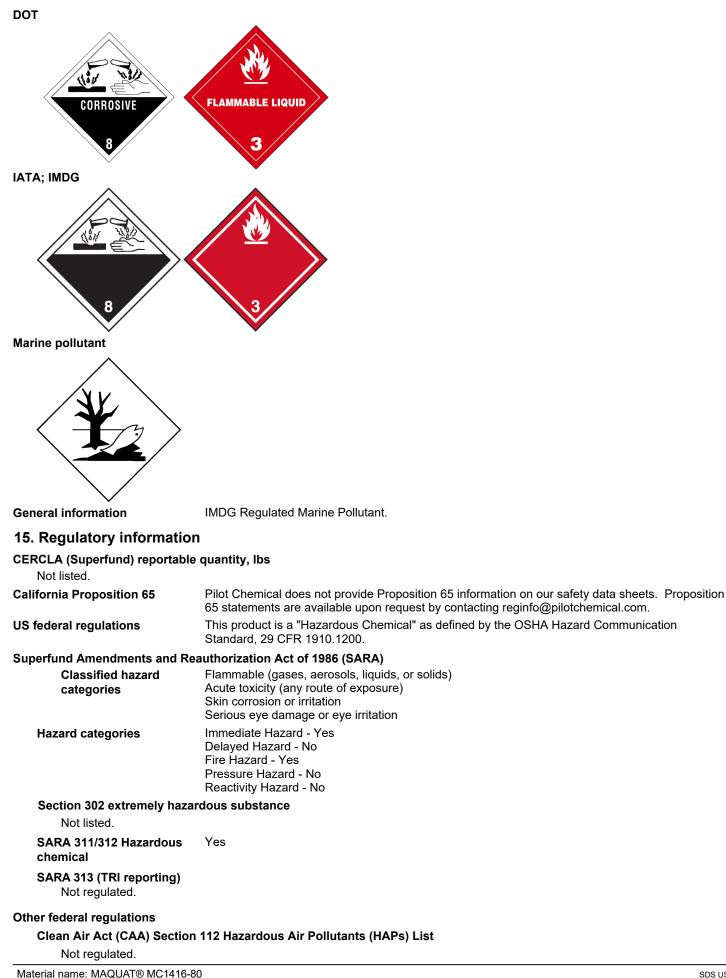
Components		Species	Test Results
Alkyl Dimethyl Benzyl Ammo	onium Chloride		
Aquatic			
Acute			
Fish	LC50	Bluegill (Lepomis macrochirus)	0.515 mg/l
Chronic			
Crustacea	NOEL	Daphnia	0.0042 mg/l
Isopropanol (2-propanol) (C/	AS 67-63-0)		
Aquatic			
Algae	EC10	Algae	1800 mg/l, 7 days
Crustacea	EC50	Daphnia	10000 mg/l, 24 hours
Fish	LC50	Fish	9640 mg/l, 96 hours
Acute			
Fish	LC50	Fathead minnow (Pimephales promelas) 5770 - 7450 mg/l, 96 hours
ersistence and degradability	This product	is expected to be readily biodegradable.	
ioaccumulative potential			
Partition coefficient n-octa	nol / water (log	l Kow)	
Isopropanol (2-propanol)		0.05	
lobility in soil	This product is miscible in water and may not disperse in soil.		
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 considerations

Disposal instructions	Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.
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	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT	
UN number	UN2920
UN proper shipping name	Corrosive liquids, flammable, n.o.s. (Quaternary Ammonium Compound, Isopropanol)
Transport hazard class(es)	
Class	8
Subsidiary risk	3
Label(s)	8, 3
Packing group	
	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	B2, IB2, T11, TP2, TP27
Packaging exceptions	None
Packaging non bulk	202
Packaging bulk	243
ERG number	132
IATA	
UN number	UN2920
UN proper shipping name	Corrosive liquid, flammable, n.o.s. (Quaternary Ammonium Compound, Isopropanol)
Transport hazard class(es)	
Class	0
	8 3
Subsidiary risk	
Label(s)	8, 3
Packing group	
Environmental hazards	Yes
ERG Code	8F
	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo	Allowed with restrictions.
aircraft Cargo aircraft only	Allowed with restrictions.
IMDG	Allowed with restrictions.
-	UN2920
UN number	
UN proper shipping name	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (QUATERNARY AMMONIUM COMPOUND, ISOPROPANOL), MARINE POLLUTANT
Transport hazard class(es)	
Class	8
Subsidiary risk	3
Label(s)	8, 3
Packing group	II
Environmental hazards	1
	N .
Marine pollutant	Yes
EmS	F-E, S-C
	Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to	Not established.
Annex II of MARPOL 73/78 and	
the IBC Code	



Not regulated.		
Safe Drinking Water Act (SDWA)	Not regulated.	
FEMA Priority Substa	ices Respiratory Health and Safety in the Flavor Manu	ifacturing Workplace
Isopropanol (2-prop	anol) (CAS 67-63-0) Low priority	
FIFRA Information	This chemical is a pesticide product registered by the E subject to certain labeling requirements under federal p from the classification criteria and hazard information n workplace labels of non-pesticide chemicals. Listed be the pesticide label.	pesticide law. These requirements differ equired for safety data sheets, and for
Signal word	DANGER KEEP OUT OF REACH OF CHILDREN	
Hazard statement	Corrosive. Causes irreversible eye damage and skin b through skin or inhaled. Do not get in eyes, on skin or mist. Wear goggles or face shield, chemical-resistant g handling. Wear a minimum of NIOSH-approved particu R or P filter. Higher level respirators that are NIOSH ap Wash thoroughly with soap and water after handling ar using tobacco or using the toilet. Remove contaminate	on clothing. Do not breathe vapor or spray gloves and protective clothing when ulate filtering facepiece respirator with any N oproved for particulates can also be used. nd before eating, drinking, chewing gum,
rnational Inventories		
Country(s) or region	Inventory name	On inventory (yes/no
Australia	Australian Inventory of Industrial Chemicals (AICIS)	Ye
Canada	Domestic Substances List (DSL)	Ye
Canada	Non-Domestic Substances List (NDSL)	Ν
China	Inventory of Existing Chemical Substances in China (IE	ECSC) Ye
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Ye
Europe	European List of Notified Chemical Substances (ELINC	CS) N
Japan	Inventory of Existing and New Chemical Substances (E	ENCS) Y
Korea	Existing Chemicals List (ECL)	Y
New Zealand	New Zealand Inventory	Y
Philippines	Philippine Inventory of Chemicals and Chemical Subst (PICCS)	ances Ye

*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).

Toxic Substances Control Act (TSCA) Inventory

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

Issue date	06-01-2015
Revision date	02-23-2023
Version #	04
HMIS® ratings	Health: 3 Flammability: 3 Physical hazard: 0
NFPA ratings	Health: 3 Flammability: 3 Instability: 0

United States & Puerto Rico

Yes

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Revision information

This document has undergone significant changes and should be reviewed in its entirety.