Safety Data Sheet (SDS)

Revision Number: 3.0	*Last updated:* March 25, 2021

1. Identification

Product Name:	MQAE; *[N-(Ethoxycarbonylmethyl)-6-methoxyquinolinium bromide]*
Recommended use/restrictions on use:	For research use only. Not intended for food, drug, household, agricultural or cosmetic use.
Manufacturer/Distributor:	AnaSpec, Inc. www.anaspec.com 34801 Campus Drive Fremont, CA 94555 Tel: 510-791-9560 Fax: 510-791-9572 Email: service@anaspec.com
Catalog Number:	AS-84925

2. Hazards Identification

GHS Hazard Classification:

GHS Physical Hazards:

Skin irritation (Category 2)
Eye irritation (Category 2A)
Specific target organic toxicity (Single exposure category 3), Respiratory system

GHS Health and Environmental Hazards:

GHS Signal Words: WARNING

GHS Hazard Statements:

Causes skin irritation	H315
Causes serious eye irritation.	H319
May cause respiratory irritation.	H335

GHS Hazard Symbol/Pictogram:

GHS Precautionary Statements:

P261	Avoid breathing dust/fume/gas/mist/vapour/spray
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/eye protection/face protection.
P302 + P352	IF ON SKIN: Wash with copious amounts of soap and water
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lens, if present and easy to do so. Continue rinsing.

Description of any hazards not otherwise classified: N/A

Description of any unknown acute toxicity: N/A

HMIS Classification

Health hazard: 2
Flammability: 0
Physical hazards: 1

NFPA Rating

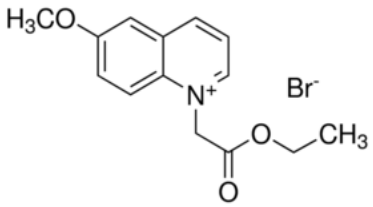
Health hazard: 2
Fire: 0
Reactivity Hazard: 0

3. Composition / Information on Ingredients

Ingredients/Components:

Chemical Name: MQAE; *[N-(Ethoxycarbonylmethyl)-6-methoxyquinolinium bromide]*

CAS No.: 162558-52-3
EC No.: N/A
Molecular Formula: $C_{14}H_{16}BrNO_3$
Molecular Weight: 326.2



4. First Aid Measures

Inhalation:	If dust is inhaled, remove from contaminated area. Encourage patient to blow nose to ensure clear passage of breathing. If irritation or discomfort persists seek medical attention.
Ingestion:	If swallowed do **NOT** induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice.
Skin:	If skin or hair contact occurs: Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Eyes:	If this product comes in contact with the eyes: Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. If pain persists or recurs seek medical attention.

5. Fire Fighting Measures

Extinguishing media:	Water spray or fog. Alcohol resistant foam. Dry chemical powder. BCF (where regulations permit). Carbon dioxide
b) Unusual fire and explosion hazards (hazardous combustion products):	Alert Emergency Responders and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area. **DO NOT** approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.
c) PPE for firefighters and special firefighting procedures/techniques:	Alert Emergency Responders and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area. **DO NOT** approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.

6. Accidental Release Measures

Precautions and spill response/procedure	Remove all ignition sources. Clean up all spills immediately. Avoid contact with skin and eyes. Control personal contact by using protective equipment. Use dry clean up procedures and avoid generating dust. Place in a suitable, labeled container for waste disposal
Containment materials	Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. DO NOT enter confined spaces until atmosphere has been checked. DO NOT allow material to contact humans, exposed food or food utensils. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers securely sealed when not in use. Avoid physical damage to containers. Always wash hands with soap and water after handling. Use good occupational work practice. Empty containers may contain residual dust which has the potential to accumulate following settling. Such dusts may explode in the presence of an appropriate ignition source. Do NOT cut, drill, grind or weld such containers

7. Handling and Storage

Provisions for safe handling	Use personal protective equipment
Conditions for safe storage	Store at -20°C desiccated and protected from light. Store away from oxidizing agent.

8. Exposure Controls / Personal Protection

Exposure limits	*OSHA Permissible Exposure Limit(PEL)*	N/A
	ACGIH Threshold Limit Values (TLV)	N/A
Engineering controls	Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction. Exhaust ventilation should be designed to prevent accumulation and re-circulation of particulates in the workplace. If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered. Such protection might consist of: (a): particle dust respirators, if necessary, combined with an absorption cartridge; (b): filter respirators with absorption cartridge or canister of the right type; (c): fresh-air hoods or masks Build-up of electrostatic charge on the dust particle, may be prevented by bonding and grounding. Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to efficiently remove the contaminant.	
PPE	Use personal protective equipment	

9. Physical and Chemical Properties

a) Appearance (Physical State, color, etc.)	powder
b) Odor	N/A
c) Odor threshold	N/A
d) pH	N/A
e) Initial Boiling Point Boiling Range	Not available
f) Flash Point	Not available
g) Melting Point/Freezing point	Not available
h) Evaporation Rate:	Not available
i) Flammability (solid, gas)	N/A
j) Upper/Lower Flammability or Explosive Limits	N/A
k) Vapor Pressure:	Not available
l) Vapor Density:	Not available
m) Relative Density	Not available
n) Solubility(ies)	Not available
o) Partition Coefficient n-octanol/water	Not available
p) Auto-Ignition Temperature	N/A

q) Decomposition Temperature	Not available
r) Viscosity	Not available
s) Other	N/A

10. Stability and Reactivity

a) Reactivity	N/A
b) Chemical stability	N/A
c) Possibilities of hazardous Reactions	N/A
d) Conditions to avoid	N/A
e) Incompatible materials	N/A
f) Hazardous decomposition products	COx, NOx when burned

11. Toxicological Information

a) Likely routes of exposure		Absorption through skin or ingestion
b) Description of the symptoms		
c) Effects from short- and long- term exposure	*Immediate effects:*	May cause irritation and sensitization after prolonged exposure.
	Delayed effects:	May cause irritation and sensitization after prolonged exposure.
	Chronic effects:	May cause irritation and sensitization after prolonged exposure.
d) Toxicity		Not available
e) Carcinogenicity:		Not available

12. Ecological Information

13. Disposal Considerations

All waste must be handled in accordance with local, state and federal regulations. Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

14. Transport Information

UN Number	N/A
Transport hazard Class	N/A
Packing Group	N/A
Proper Shipping Name (DOT/IATA)	N/A
Marine pollutant	N/A

15. Regulatory Information

US TSCA (Toxic Substance Control Act): N/A
US CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act: N/A
US SARA Title III (Superfund Amendments and Reauthorization Act: N/A

US Clean Air Act:
Listed under Hazardous Air Pollutants: N/A
Listed under Class 1 Ozone Depletors: N/A
Listed under Class 2 Ozone Depletors: N/A
US Clean Water Act:
Listed under "Hazardous Substances": N/A
Listed under "Priority Pollutants": N/A
Listed under "Toxic Pollutants": N/A

US States:
Right-to-Know:
Listed in the following States: N/A
California Proposition 65: NO

European/International Regulations:
EC EINICS (European Inventory of Existing Commercial Chemical Substances) Number: N/A
WGK (Water Danger / Protection): N/A
Canada – DSL/NDSL: Not Listed
Canada – WHMIS classification: N/A
Canada – Canadian Ingredient Disclosure List: Not Listed

16. Other Information

The above information is believed to be correct but does not purport to be all inclusive. Users of this SDS shall understand it is to be used only as a guide. Users should make independent decisions regarding completeness of the information based on all sources available. Users are granted the right to make unlimited copies of this SDS for internal use only. AnaSpec shall not be held liable for any damage resulting from handling or from contact with the above product. The date of first preparation or last revision is listed at the top of this SDS.