

SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

1. Identification

Product identifier: Quab® 188 (69%)

Other means of identification

None.

Recommended restrictions

Recommended use: Intermediate

Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information

Company Name : Quab Chemicals, Inc.
250 Pehle Avenue, Suite 403
Saddle Brook, NJ 07663
USA

Telephone : +1 201 556 0300

Fax : +1 201 556 0335

Manufacturer

Emergency telephone number:

24-Hour Health : +1 800 424 9300 (CHEMTREC - US & CANADA)

Emergency : +1 800 681 9531 (CHEMTREC MEXICO)

+1 703 527 3887 (CHEMTREC WORLD)

+1 973 929 8060 (Product Regulatory Services)

2. Hazard(s) identification

Hazard Classification

Health Hazards

Carcinogenicity Category 2

Environmental Hazards

Chronic hazards to the aquatic environment Category 3

Label Elements

Hazard Symbol:



Signal Word:	Warning
Hazard Statement:	Suspected of causing cancer. Harmful to aquatic life with long lasting effects.
Precautionary Statements	
Prevention:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Avoid release to the environment.
Response:	IF exposed or concerned: Get medical advice/attention.
Storage:	Store locked up.
Disposal:	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Hazard(s) not otherwise classified (HNOC):	None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%) [*]
3-Chloro-2-hydroxypropyltrimethylammonium chloride		3327-22-8	50 - <100%

^{*} All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition Comments: Aqueous Solution

The exact concentration has been withheld as a trade secret.

4. First-aid measures

Description of necessary first-aid measures

General information: Observe self-protection (eye protection, body protection).

Inhalation:	If spray mist has been inhaled Possible discomfort: irritation of mucous lining (nose, throat, eyes) cough, sneezing, flow of tears. Move victims into fresh air. If breathing difficulties occur: Keep patient half sitting with upper body raised. Call a physician immediately.
Skin Contact:	After contact with skin, wash immediately with plenty of water. Take off immediately all contaminated clothing.
Eye contact:	Keeping eyelid open, immediately rinse thoroughly for at least 5 minutes using plenty of water or, if necessary, eye rinsing solution. In case of persistent discomfort: Consult an ophthalmologist.
Ingestion:	Have the mouth rinsed with water. Do NOT induce vomiting. After absorbing large amounts of substance: Call a physician immediately.
Personal Protection for First-aid Responders:	In the case of fire, wear respiratory protective equipment independent of surrounding air and chemical protective suit.

Most important symptoms/effects, acute and delayed

Symptoms:	None known.
Hazards:	No data available.

Indication of immediate medical attention and special treatment needed

Treatment:	Specific recommendations: none known If substance has been swallowed: Gastric lavage, administration of activated charcoal, acceleration of gastrointestinal passage.
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5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	Water spray, foam, CO2, dry powder.
Unsuitable extinguishing media:	alkaline agent

Specific hazards arising from the chemical:	Danger of decomposition under influence of heat. Use water spray to cool unopened containers. In the case of fire, the following hazardous smoke fumes may be produced: trimethylamine, chloroacetone, chloromethane Also keep emptied containers away from sources of heat and ignition.
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Special protective equipment and precautions for firefighters

Special fire fighting procedures:	Water used to extinguish fire should not enter drainage systems, soil or stretches of water. Ensure there are sufficient retaining facilities for water used to extinguish fire. Contaminated fire-extinguishing water must be disposed of in accordance with the regulations issued by the appropriate local authorities. Fire residues should be disposed of in accordance with the regulations. Use water spray to cool unopened containers. In case of fire, remove the endangered containers and bring to a safe place, if this can be done safely. As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.
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Special protective equipment for fire-fighters: In the case of fire, wear respiratory protective equipment independent of surrounding air and chemical protective suit.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Avoid contact with skin and eyes. Wear personal protective equipment; see section 8. Do not inhale spray mist.

Methods and material for containment and cleaning up: Absorb with liquid-binding material, e. g.: chemisorption, diatomaceous earth, universal binder Collect in suitable containers. Dispose of contaminated material as a waste in a correct manner. Clean contaminated surface thoroughly. Pack and label wastes like the pure substance. Do not detach label from the delivery containers prior to disposal. Disposal according to local authority regulations. Absorb spill with inert material, then place in a chemical waste container.

Environmental Precautions: Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, rivers, groundwater or soil.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation): The substance must be handled under strictly controlled conditions in accordance with Article 17/18 of the REACH regulation. Refill and handle product only in closed system. Leak detection recommended Wastewater can be added to a biological wastewater treatment plant. Minimization of emissions by means of suitable technical measures such as flanges and valves with low leakage rates, recirculation of vapours. All precautionary measures indicated have to be observed.

Safe handling advice:

Use permissible in closed systems only. Handle and transfer product in closed systems only (gas displacement device). Ensure that apparatus and pipelines are free from leaks. Do not ventilate into the open. Suitable loading and unloading device required. The product should only be handled by trained personnel. We wish to provide the following additional notes in order to assure that no contact occurs with the product, :A) Measures for the use of work clothes/protective clothing according to the results of the user's risk analysis :When working in closed systems, as e.g. actuation of armatures, monitoring rounds, maintenance work and closed sample taking we recommend: Wear protective goggles Use of rubber gloves When working with open systems in which contact with the product cannot be ruled out, as e.g. filling and pouring out work, taking of samples in open systems, maintenance work, the following personal protective clothing/equipment should be used: goggles Protective gloves chemical protective suit The use of a protective shield is recommended when working with large quantities. B) Measures before/after work: Wash gloves under running water before taking them off. Then also wash the water tap armatures with water. Clean protective goggles before a shift (start of work) with water, giving particular attention to the edges that come into contact with the skin of the face. Also clean helmet with water giving particular attention to parts that come into contact with the skin of the forehead and the scalp. Change protective clothing frequently (as a precautionary measure). Regularly spray the armatures and tanks with water (railings 1x weekly). Rinse small packaging containers on the outside after use with water. Collect washing water and take it for disposal. Thoroughly clean all tools immediately with water after work (e.g. spanners, pliers, screwdrivers) . Make sure that all washing water is collected and taken for disposal. Deposit helmets, gloves, protective clothing in front of the measuring station, staff rooms or the laboratory. Give attention to personal hygiene (shower, wash hands etc.). Spectacles wearers should clean them regularly, giving particular attention to the nose bridge. We recommend that this information be written and posted in a prominent position in the laboratory, factory and warehouse and should be given out direct to those persons involved. Regular safety training is important.

Contact avoidance measures:

No data available.

Hygiene measures:

Avoid contact with eyes, skin, and clothing. No eating, drinking, smoking, or snuffing tobacco at work. Wash face and/or hands before break and end of work. Preventive skin protection is recommended. Private clothes and working clothes should be kept separately. Any contaminated protective equipment is to be cleaned after use.

Storage

Safe storage conditions:

Protect from sunlight, warmth and heat. In the event of internal transportation, already-opened containers are to be kept closed in order to avoid spillage. In order to ensure due transportation, make certain that stacks are of the correct height, containers are securely fastened so as not to fall off, and labelled according to the regulations. Store in the original receptacle, keeping this tightly sealed, under cool and dry conditions. In case of fire cool containers or take them to a safe place. see section 5.

Safe packaging materials:

No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

None of the components have assigned exposure limits.

Appropriate Engineering Controls

The substance must be handled under strictly controlled conditions in accordance with Article 17/18 of the REACH regulation. Refill and handle product only in closed system. Leak detection recommended Wastewater can be added to a biological wastewater treatment plant. Minimization of emissions by means of suitable technical measures such as flanges and valves with low leakage rates, recirculation of vapours. All precautionary measures indicated have to be observed.

Individual protection measures, such as personal protective equipment

Eye/face protection: wear basket-shaped glasses Accidental release measures Face shield

Skin Protection

Hand Protection:

Material: Kächele-Cama Latex GmbH (KCL), Germany
Guideline: DIN EN 374
Additional Information: Accidental release measures
Material: Kächele-Cama Latex GmbH (KCL), Germany
Guideline: DIN EN 374
Additional Information: The above mentioned hand protection is based on knowledge of the chemistry and anticipated uses of this product but it may not be appropriate for all workplaces. A hazard assessment should be conducted prior to use to ensure suitability of gloves for specific work environments and processes prior to use., Use impermeable gloves.

Skin and Body Protection:

Wear suitable protective clothing. If necessary, full body protection suit (coverall). Immediately change moistened and saturated work clothes. Take off contaminated clothing and wash it before reuse. To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.

Respiratory Protection:

A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

Hygiene measures:

Avoid contact with eyes, skin, and clothing. No eating, drinking, smoking, or snuffing tobacco at work. Wash face and/or hands before break and end of work. Preventive skin protection is recommended. Private clothes and working clothes should be kept separately. Any contaminated protective equipment is to be cleaned after use.

9. Physical and chemical properties

Appearance

Physical state:

No data available.

Form:

Aqueous Solution

Color:	colourless to yellow
Odor:	odourless
Odor Threshold:	No data available.
pH:	3 - 6
Melting Point:	Not applicable
Boiling Point:	110 °C
Flash Point:	> 200 °C (DIN 51 755)
Evaporation Rate:	No data available.
Flammability (solid, gas):	No data available.
Explosive limit - upper (%):	Not applicable
Explosive limit - lower (%):	Not applicable
Vapor pressure:	15 hPa (20 °C)
Vapor density (air=1):	No data available.
Density:	1.170 g/cm ³ (20 °C)
Relative density:	1.170 (20 °C) Water = 1
Solubility in Water:	No data available.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Self Ignition Temperature:	No data available.
Decomposition Temperature:	No data available.
Kinematic viscosity:	No data available.
Dynamic viscosity:	30 mPa.s (20 °C)
Other information	
Bulk density:	
Explosive properties:	No data available.
Oxidizing properties:	No data available.
Minimum ignition temperature:	450 °C (DIN 51 794)

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	No data available.
Possibility of hazardous reactions:	Under the recommended storage conditions, the active substance and quaternary inactive ingredients are not volatile.
Conditions to avoid:	No data available.
Incompatible Materials:	alkalis Acetic anhydride Reacts with alkaline compounds to form the corresponding epoxide (QUAB 151) Comply with Safety Data Sheet QUAB 151
Hazardous Decomposition Products:	Hydrogen chloride. trimethylamine methyl chloride chloracetone

11. Toxicological information

Information on likely routes of exposure

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product:	LD 50 (Rat): 2,213 mg/kg [pure substance] literature
Dermal Product:	LD 50 (Rat): > 2,348 mg/kg
Inhalation Product:	Not classified for acute toxicity based on available data.

Repeated dose toxicity

Product:	NOAEL (Rat(male/female), pharyngeal probe, daily): < 1,085 mg/kg LOAEL (Rat(male/female), pharyngeal probe, daily): 1,085 mg/kg (Target Organ(s): Kidney) Subacute toxicity
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Skin Corrosion/Irritation

Product:	Not irritating Directive 84/449/EEC, B.4 (Rabbit, 4 h): Not irritating literature Not irritating OECD 404 (Rabbit, 4 h): Not irritating
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Serious Eye Damage/Eye Irritation

Product:	Slightly irritating. Rabbit, 1 h: Slightly irritating.
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Respiratory or Skin Sensitization

Product:	Maximization Test, OECD 406 (Guinea Pig): not sensitizing to the skin
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Carcinogenicity

Product:	No data available.
Components:	
3-Chloro-2-hydroxypropyltrimethylammonium chloride	Suspect cancer hazard - may cause cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

US. National Toxicology Program (NTP) Report on Carcinogens:

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:

Germ Cell Mutagenicity

In vitro

Product: Tests for mutagenic potential with various end points.: positive and negative

In vivo

Product: Micronucleus test (OECD 474) Intraperitoneal (Mouse, male/female):
negative

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: Not classified

Aspiration Hazard

Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: LC 50 ((Brachydanio rerio), 96 h): 6,308 mg/l
NOEC ((Brachydanio rerio), 96 h): 3,200 mg/l

Aquatic Invertebrates

Product: EC 50 (Daphnia magna, 24 h): 367 mg/l
NOEC (Daphnia magna, 24 h): 56 mg/l

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: NOEC (Daphnia magna, 21 d): 0.51 mg/l

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: Abiotic degradation Hydrolysis; medium: alkaline.

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility in soil: No data available.

Components:

3-Chloro-2-hydroxypropyltrimethylammonium chloride
Product: No data available.

Other adverse effects: No data available.

13. Disposal considerations

Disposal methods: Waste must be disposed of in accordance with federal, state and local regulations. Incineration is the preferred method.

Contaminated Packaging: Do not reuse empty containers and dispose of in accordance with the regulations issued by the appropriate local authorities.

14. Transport information

Domestic regulation

49 CFR

Not regulated as a dangerous good

Remarks : Not dangerous according to transport regulations.

International Regulations

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Carcinogenicity

US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances

US. EPCRA (SARA Title III) Section 312 Extremely Hazardous Substances Reporting Quantities (40 CFR 355, Appendix A)

Not regulated.

Chemical Identity

Threshold Planning Quantity

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65



WARNING: This product can expose you to chemicals including, 1,3-Dichloropropan-2-ol which is [are] known to the State of California to cause cancer.

For more information go to www.P65Warnings.ca.gov.

US. New Jersey Worker and Community Right-to-Know Act

No ingredient regulated by NJ Right-to-Know Law present.

US. Massachusetts RTK - Substance List

No ingredient regulated by MA Right-to-Know Law present.

US. Pennsylvania RTK - Hazardous Substances

No ingredient regulated by PA Right-to-Know Law present.

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

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

HMIS Hazard ID

Health	2*
Flammability	1
Physical Hazards	0
PERSONAL PROTECTION	

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; *Chronic health effect

Issue Date: 07/29/2022

Version #: 1.2

Further Information: Data for the production of the safety data sheet from the studies available and from the literature. Further information about the characteristics of the product can be found in the product code of practice or in the Product-Brochure .

Revision Information Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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