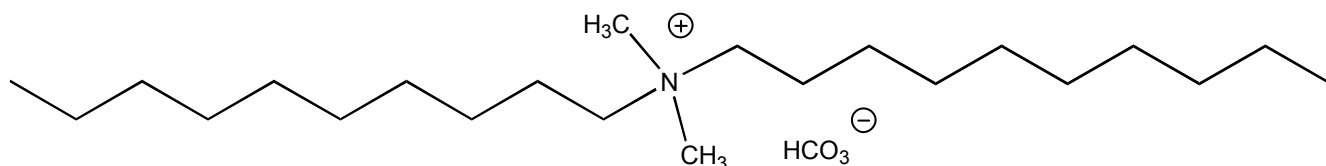


Maquat[®] CS 445C



Didecyldimethyl Ammonium Carbonate

Overview

MAQUAT CS 445C is a 50% active didecyldimethyl ammonium carbonate/bicarbonate in a water/methanol solution, for use in EPA unregistered applications.

Cationic surfactants have a multitude of uses. MAQUAT CS 445C is a unique quaternary ammonium compound that does not contain metal corroding halogens such as chloride or bromide. CS 445C is manufactured from a renewable resource alkyl amine derived from coconut oil and dimethyl carbonate, a biodegradable “green reagent.”

Use MAQUAT CS 445C as a non-corrosive cationic emulsifier in **Marine Coatings**, a biomass dispersant with unique solubility parameters in **Oil Field** applications. Mix CS 445C with weak organic acids to enhance performance in aqueous or non-aqueous systems through an in-situ replacement of the counter-ion. The unique hard water tolerance of MAQUAT CS 445C imparts differentiated performance in formulated aqueous products.

While MAQUAT CS 445C is slightly toxic orally, it causes severe skin and extreme eye irritation. As with all chemicals, use with care and caution. Avoid contact with eyes and skin, and use eye protection (goggles), gloves and protective clothing.

Typical Properties

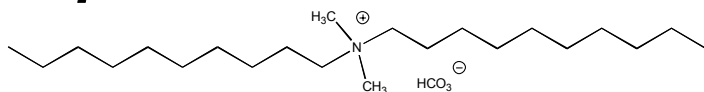
| | |
|-------------------------------------|----------------------------------|
| Water solubility | Complete |
| Physical form | Colorless to light yellow liquid |
| Active quaternary | 50.0% Minimum |
| Free Amine | 1.5% Maximum |
| Color, APHA | 150 Maximum |
| Specific gravity (25°C) | 0.93±0.04 |
| Viscosity (25°C) (Brookfield) | <500cps |
| pH | 10±1 |
| Flash point (PMCC) | 140°F(60°C) |
| RVOC, U.S. EPA, % | 4.5-5.0 (Methanol) |

Handling Information

Refer to and follow the guidelines in the Material Safety Data Sheet (MSDS) available from Mason Chemical Company for information on the safe use, handling and disposal of this product.

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Maquat® CS 445C



Maquat CS 445C is an effective fragrance solubilizer and grease cutter in deodorizer formulations that does not contain metal corroding halogens such as chloride or bromide. The following formulations illustrate this performance:

“Aviation” Deodorizer Concentrate

| Ingredients: | Wt. % |
|-------------------------------------|-------|
| <i>Aqueous Phase-</i> | |
| Water..... | 64.50 |
| Maquat CS 445C | 20.00 |
| Isopropyl Alcohol | 4.00 |
| Acid Blue #9 | 0.75 |
| <i>Fragrance/Oil Phase-</i> | |
| Citronella Oil | 3.00 |
| d-Limonene..... | 3.00 |
| Ethyleneglycol monophenylether..... | 0.75 |

Procedure:

Mix ingredients thoroughly in order listed. Add pre-mixed oil phase to pre-mixed aqueous phase. Components should mix “clear” in all proportions.

Dilute 1 ounce concentrate per gallon of water.

Natural Citronella and d-Limonene are safe and effective deodorizer ingredients in this formulation.

Effective Ready-to-Use Deodorizer

| Ingredients: | Wt. % |
|-----------------------------|-------|
| <i>Aqueous Phase-</i> | |
| Water..... | 94.0 |
| Maquat CS 445C | 0.6 |
| Isopropyl Alcohol | 3.0 |
| <i>SolventPhase-</i> | |
| Surfonic N95 | 1.0 |
| Isopropyl Alcohol | 1.0 |
| Fragrance | 0.4 |

Procedure:

Mix ingredients thoroughly in order listed. Add pre-mixed oil phase to pre-mixed aqueous phase. Components should mix “clear” in all proportions. If necessary, increase N95 by 0.5% increments to solubilize fragrances for clear solutions.

Use “as is.”

Spray directly on odor causing soils as a cleaning pre-step or as an ongoing odor control product.