

Section 1 – Product & Company Identification

Product Name: Formula 442 – Ready to Use – Acid Free Disinfectant Cleaner
 Product Class: Quaternary Ammonium Compound
 Product Use: Ready to Use Disinfectant Cleaner
 EPA Reg. Number: 1839-83-5747
 Manufacturer:

Arrow Chemical Products, Inc.
 2067 Ste. Anne
 Detroit, MI 48216
 313-237-0277
 24 hr. Emergency Assistance: Infotrac 1-800-535-5053

Telephone
 Numbers:

Section 2 – Composition/Information on Ingredients

INGREDIENT	CAS #	Wt. %
Diethylene glycol monobutyl ether	112-34-5	8%
Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride (C12-18)	85409-23-0	0.105%
Alkyl dimethyl benzyl ammonium chloride (C12-18)	68391-01-5	0.105%

Section 3 – Hazards Identification

Emergency Overview: May be irritating to eyes and skin.

Potential Health Effects:

Skin: May cause irritation.
 Eyes: May cause irritation and burns.

Inhalation: Exposure via inhalation not likely. High vapor or aerosol mist concentrations may be irritating to the nose, throat and upper respiratory tract.

Ingestion: May cause transient irritation of throat, stomach and gastrointestinal tract. Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhea.

Chronic: None

Section 4 – First Aid Measures

Eyes: Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Seek medical attention at once.

Skin/Clothing: Immediately take off contaminated clothing. Wash clothing before reuse. For skin contact, flush with large amounts of water. If irritation persists, get medical attention.

Inhalation: If symptoms are experienced, move victim to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Ingestion: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Section 5 – Fire Fighting Measures

Flash Point: >201 °F. PMCC Upper - Lower: Not Determined

Extinguishing Media: Use appropriate methods for combating the surrounding fire.

Fire Fighting Equipment & Instructions: Firefighters should wear full protective clothing including self-contained breathing apparatus. Cool fire exposed containers with spray.

Hazardous Combustion Products: Irritating and toxic gases or fumes may be released during a fire.

Section 6 – Accidental Release Measures**Spill and Leak Procedures**

Emergency Action: Isolate spill or leak area immediately. Keep unauthorized personnel away. Stay upwind. Keep out of low areas where vapors may accumulate.

Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area).

Spill Cleanup: Ventilate closed spaces before entering. Floor will be slippery. Do not touch or walk through spilled material. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Large Spills: Dike far ahead of liquid spill for later disposal. Follow spill cleanup directions.

Section 7 – Handling & Storage

Handling Procedures: Avoid contact with skin and eyes. Avoid breathing vapors or mists of this product. Follow good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Wash thoroughly after work using soap and water.

Storage Procedures: Keep the container tightly closed and in a cool, well-ventilated place. Avoid freezing or excessive heat. Do not contaminate water, food or feed by storage or disposal.

Section 8 – Exposure Controls/Personal Protection

Engineering Controls: Provide adequate local exhaust ventilation.

Personal Protective Equipment:

Eyes/Face: Chemical safety goggles recommended if splashing is possible.

Skin: Impervious gloves (rubber or neoprene) recommended.

Respiratory: Use in well ventilated areas.

The following ingredients have established exposure guidelines:

INGREDIENT: Diethylene glycol monobutyl ether 112-34-5

EXPOSURE GUIDELINE: N/E

GUIDELINE VALUE: N/E

All TWAs are for an 8-hour period and all STELs are for 15 minutes unless specifically noted as being for another time period.

Section 9 – Physical & Chemical Properties

Flash Point: >200° F.

Specific Gravity: 1.007 (8.38 lb/gal)

Percent Volatiles: No Data

VOC Content: No Data

Evaporation Rate: Not Determined

pH: 11.7

Appearance and Odor: Blue or Clear liquid, pleasant fragrance



Section 10: Stability & Reactivity

Chemical Stability: Stable Conditions to Avoid: Keep away from heat and strong oxidizing agents.
Incompatibilities: Strong oxidizing agents, reducing agents.
Hazardous Decomposition: May yield oxides of nitrogen and ammonia.
Hazardous Polymerization: Will not occur.

Section 11 – Toxicological Information

Carcinogenicity: Not listed as carcinogenic according to IARC, NTP or OSHA.
Tetra sodium ethylenediamine tetra acetic acid (Na4EDTA) – Toxicology Data – Selected LD50's and LC50's
Acute Oral LD50 Rat: 1658 mg/kg
Diethylene glycol monobutyl ether – Toxicology Data – Selected LD50's and LC50's
Acute Oral Rat: 3384 mg/kg
Acute Dermal LD50 Rabbit: 2700 mg/kg

Section 12 – Ecological Information

Ecotoxicity: Toxic to fish. Toxic to aquatic organisms. .
Environmental Fate: This product is biodegradable.

Section 13 – Disposal Considerations

Disposal Instructions: CONTAINER DISPOSAL: Plastic Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incinerations, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. For containers 1 gallon or less; Do not reuse empty container (bottle, can, bucket). Wrap container and put in trash. PESTICIDE DISPOSAL – 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.

Section 14 – Transportation Information

DOT Hazard Class: Non-Hazardous, Not regulated
DOT Proper Shipping Name: Compounds, cleaning liquids, n.o.s.

Section 15 – Regulatory Information

TSCA Status

All ingredients are listed on the TSCA Inventory of Chemical Substances.
Other Chemical Inventories

CERCLA/SARA

SARA Title III, Sections 311/312 – This act requires reporting under the Community Right-to-Know provisions due to the inclusion of the following components of this material in one or more of the five hazard categories listed in the 40 CFR 370: Classification of this product: Immediate

SARA Title 313 – This act requires submission of annual reports of releases of the following components of this material if the threshold reporting quantities, as listed in 40 CFR 372, are met or exceeded:

CHEMICAL NAME	CAS NO.	MAXIMUM CONCENTRATION	COMMENT
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No ingredients listed in this section.

Reportable Quantities/Threshold Planning Quantities: CERCLA requires notification of the National Response Center (Telephone 1-800-424-8802) in the event of a release of quantities of the following hazardous materials contained in this product, if the release is equal to or greater than the Reportable Quantities (RQs). SARA 302/304 requires emergency planning, including agency notification, for possible release of the following components of this material, based upon the Threshold Planning Quantities (TPQs) and/or release of Reportable Quantities.

CHEMICAL NAME	REPORTABLE QUANTITY (RQ)	THRESHOLD PLANNING QUANTITY (TPQ)
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No ingredients listed in this section.

State & Provincial Right to Know & Selected Regulatory Lists

The following ingredients appear on various state right to know lists and/or California's Proposition 65 List

CHEMICAL NAME	STATE LIST
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None known.

AZ – Arizona Ambient Air Quality Guidelines	NJ – New Jersey Right to Know List
CT – Connecticut Hazardous Air Pollutants	MA – Massachusetts Right to Know List
CA – California Director's List of Hazardous Substances	MN – Minnesota Hazardous Substance List
CA65R – California Prop 65 Reproductive Toxin	PA – Pennsylvania Right to Know List
RI – Rhode Island Hazardous Substance List	
ID – Idaho Non-carcinogen Toxic Air Pollutants	

WHMIS Classification: E. This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16 – Other Information

Hazard Ratings

Hazard Ratings

Hazard Rating Scale:

- 4 = Extreme
- 3 = High
- 2 = Moderate
- 1 = Slight
- 0 = Insignificant

HEALTH	1
FLAMMABILITY	0
REACTIVITY	0

The seller makes no warranty expressed or implied concerning the accuracy of any results to be obtained from the use of any information and no warranty expressed or implied concerning the use of the products. The buyer assumes all risks of the use and/or handling.