SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Defoam It
Product Number: 9666 (and other versions of 9666)

Manufacturer: Arcot Manufacturing Corporation, 2950 Mowery Road, Houston, Texas, U.S.A. 77045
Arcot Customer Service Telephone: 713-413-9700
Website: www.ArcotManufacturing.com

Recommended Use: Defoamer. Antifoaming agent.
Restrictions On Use: For commercial use only. Not packaged for retail sale to households. Slippery on contact surfaces. Do not apply to contact surfaces. Do not use on sensitive or untested surfaces.

2. HAZARDS IDENTIFICATION

GHS Hazard Classification in accordance with 29 CFR 1910 (OSHA HCS):

Acute toxicity, oral - Category 4
Skin corrosion/irritation - Category 2
Eye damage/irritation – Category 2B

Signal Word: **WARNING**

Hazard Statements:

H302: Harmful if swallowed.
H315: Causes skin irritation.
H320: Causes eye irritation.

Other Hazards: Slipping hazard.

Precautionary statements:

Prevention:

P264: Wash skin and face thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P280: Wear protective gloves and eye protection or face protection.
Keep away from contact surfaces.

Response:

P305 + P351 + P338 + P337 + P313: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

P301 + P330 + P331 + P312: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a doctor if you feel unwell.
P303 + P352 + P362 + P364 + P332 + P313: IF ON SKIN (or hair): Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention.
P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P321: Specific treatment (see section 4 of this SDS and the label)
P370 + P378: In case of fire: Use water spray, alcohol-resistant foam, carbon dioxide (CO_2) or dry chemical to extinguish.

Storage:

P403: Store in a well-ventilated place.
P404: Store in a closed container.
P410: Protect from sunlight.
P411: Store at temperatures not exceeding 80°F.
Keep from freezing. Store at temperatures between 50°F and 80°F. Keep product from contaminants and cross-contamination.

Disposal:

P501: Dispose of contents and container to an approved waste disposal plant in accordance with applicable local, state, federal and international regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS #	Concentration
Water	7732-18-5	Proprietary
3,5,7-Triaza-1-azoniatricyclo [3.3.1.13,7] decane,1-(3-chloro-2-propenyl)- , chloride (CTAC)	4080-31-3	< 1%
Other ingredients are nonhazardous and/or considered trade secrets; however, all hazardous aspects of the ingredients and of this mixture are considered and included. The exact percentage of composition has been withheld as a trade secret. This SDS is used for a group of substantially similar mixtures.		

4. FIRST-AID MEASURES

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area. First Aid responders should pay attention to self-protection and use the recommended protective clothing. See Section 8.

If inhaled: Move person into fresh air. If not breathing, give artificial respiration; if by mouth to mouth, use rescuer protection (pocket mask, etc.). If breathing is difficult, give oxygen. Consult a physician.

In case of skin contact: Take off contaminated clothing and shoes immediately. Wash skin with soap and plenty of water. Consult a physician. Wash contaminated clothing before reuse.

In case of eye contact: Immediately and thoroughly flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If easy to do, remove contact lenses. Continue rinsing eyes and consult a physician, preferably an ophthalmologist.

If swallowed: Never give anything by mouth to an unconscious person. If conscious and alert, rinse mouth with water. Do not induce vomiting. Consult a physician or poison control center immediately.

Most important symptoms and effects, both acute and delayed: May cause eye damage and pain. May irritate skin. Harmful if swallowed.

Treatment: Treat symptomatically. If any irritation or symptoms persists, seek medical attention immediately.

5. FIRE-FIGHTING MEASURES

Specific hazards that may develop from this product during fire: Hazardous decomposition and byproducts may include carbon oxides (such as carbon monoxide and carbon dioxide), nitrogen oxides, hydrogen chloride, formaldehyde, ammonia, amines and other toxic and irritating fumes.

Suitable extinguishing media: Product is not flammable. Water spray, alcohol-resistant foam, dry chemical or carbon dioxide may be used for surrounding fires.

Unsuitable extinguishing media: Do not use direct water stream. May spread fire.

Advice for firefighters: Wear positive-pressure, self-contained breathing apparatus and full protective clothing in case of fire. In spill situations, wear chemical protective clothing. Keep unauthorized personnel away. Evacuate residents who are downwind of fire.

Precautions for firefighters: Use water spray to keep fire-exposed containers cool. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

General advice: Do not mix with other chemicals. Avoid product contact with strong oxidizing agents, strong reducing agents, strong acids and strong bases.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. See section 8 for personal protection. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Local authorities should be advised if significant spillages cannot be contained. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Spilled material may cause a slipping hazard.

Methods and materials for containment and cleanup procedures:

> Large Spills: Stop the flow of material, if this is safe. Completely contain spilled material with dikes, sandbags, etc., where this is possible. Spilled material may be removed with a vacuum truck. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Following product recovery, flush area with water.

Small Spills: Absorb spill with vermiculite or other inert material. Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use. Keep in suitable, closed containers for disposal. For waste disposal, see Section 13 of the SDS.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Discharge into the environment must be avoided.

7. HANDLING AND STORAGE

Precautions for safe handling: See Sections 2 and 8. Read the SDS and label carefully and completely before handling this product. Do not get in eyes, on skin or on clothing. Do not taste or swallow. Do not breathe mist or vapor. Use only with adequate ventilation. Wear appropriate personal protective equipment. Observe good hygiene practices. Do not eat, drink or smoke where the product is being used. Wash thoroughly after handling.

Conditions for safe storage: Keep containers tightly closed, properly labeled and upright to prevent leakage. Store in original containers. Store in a cool, dry, shaded and well-ventilated place away from sunlight and extreme temperatures. Store at temperatures between 50°F and 85°F. Containers which are opened must be carefully resealed. Do not mix with other chemicals. See Section 10.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Appropriate engineering controls: Provide sufficient mechanical ventilation.

Personal Protective Equipment (PPE):

Eye Protection: Use chemical goggles. An emergency eye wash must be readily accessible to the work area. Ensure safety shower is available near all areas of bulk storage, delivery and use.

Skin and Body Protection: Wear chemical resistant clothing and rubber boots when potential for contact with the material exists. Contaminated clothing should be removed, then discarded or laundered.

Hand Protection: Wear appropriate impermeable, chemical-resistant gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Wash and dry hands after handling this product.

Protective Material Types: Natural rubber, Neoprene or Nitrile with minimum layer thickness of 0.11 mm and break through time of 480 minutes. The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Respiratory protection: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use an NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

General Industrial Hygiene Considerations: Do not get in eyes or on skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Handle in accordance with good industrial hygiene and safety practices.

Environmental Exposure Controls: Follow best practice for site management and disposal of waste.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Form: liquid Color: white
Odor	mild chemical
Odor Threshold	No data available
pH	approximately 7
Freezing point	No data available
Initial boiling point	No data available
Flash point	No data available (Not Flammable)
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	approximately 1 g/mL (8.3 Lb./Gal.) at 25°C (77°F)
Water solubility	miscible
Partition coefficient (n-octanol/water)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available

10. STABILITY AND REACTIVITY

Reactivity: Stable at normal temperatures and pressures in original containers.

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: Hazardous polymerization does not occur.

Conditions to avoid: Contact with incompatible materials. Extreme temperatures. Direct sunlight. Contamination. Exposure to open air.

Incompatible materials: Strong oxidizing agents. Strong reducing agents. Strong acids. Strong bases.

Hazardous decomposition products: carbon oxides (such as carbon monoxide and carbon dioxide), nitrogen oxides, hydrogen chloride, formaldehyde, ammonia, amines, and other toxic and irritating fumes. In the event of fire, see section 5.

11. TOXICOLOGICAL INFORMATION

Component Information:

3,5,7-Triaza-1-azoniatricyclo [3.3.1.13,7] decane,1-(3-chloro-2-propenyl)- , chloride (CTAC):

Acute oral toxicity: Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. LD50, Rat, 1,000 mg/kg

Acute dermal toxicity: Prolonged skin contact is unlikely to result in absorption of harmful amounts. LD50, Rabbit, > 5,000 mg/kg

Acute inhalation toxicity: No adverse effects are anticipated from single exposure to dust. For respiratory irritation and narcotic effects: No relevant data found.
LC50, Rat, 4 Hour, dust/mist, > 5.2 mg/l No deaths occurred at this concentration.

Likely routes of exposure: Inhalation, Skin, Eye, Ingestion.

Symptoms related to the physical, chemical and toxicological characteristics:

Inhalation

Acute (Immediate): Under normal conditions of use, no health effects are expected.
Chronic (Delayed): Repeated or prolonged exposure may cause bronchial irritation.

Skin

Acute (Immediate): May cause skin irritation.
Chronic (Delayed): Repeated or prolonged exposure may cause skin irritation with local redness.

Eye

Acute (Immediate) and Chronic (Delayed): May cause severe eye irritation and severe corneal injury.

Ingestion

Acute (Immediate) and Chronic (Delayed): May cause abdominal pain, nausea, vomiting, diarrhea and other gastrointestinal disturbances. Aspiration of the swallowed or vomited product can cause severe pulmonary complications.

Information on toxicological effects: Acute toxicity. Harmful if swallowed.

Germ cell mutagenicity: No data available

Carcinogenicity: This product is not classified as a carcinogen by NTP, IARC, ACGIH or OSHA. No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, ACGIH, NTP or OSHA.

Reproductive toxicity: No data available

Specific target organ toxicity - single exposure: Evaluation of available data suggests that this product is not an STOT-SE toxicant.

Specific target organ toxicity - repeated exposure: No data available for the product. Component Information is as follows: CTAC: In animals, effects have been reported on the following organs after ingestion: Liver.

Aspiration hazard: No data available

Additional Information: RTECS: Not available

12. ECOLOGICAL INFORMATION

Aquatic toxicity: no data available for this product. In concentrated form, this product may be harmful to aquatic organisms. Avoid release of unused, concentrated product into the environment.

Toxicity Data for Components:

CTAC:

Acute toxicity to fish: Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

LC50, Lepomis macrochirus (Bluegill sunfish), 96 Hour, 66 mg/l
LC50, Oncorhynchus mykiss (rainbow trout), 96 Hour, 64 mg/l

Acute toxicity to aquatic invertebrates:

EC50, Daphnia magna (Water flea), 48 Hour, 25.8 mg/l
LC50, copepod Acartia tonsa, 14.1 mg/l
LC50, grass shrimp (Palaemonetes pugio), > 128 mg/l
LC50, pink shrimp (Penaeus duorarum), 182 mg/l

Acute toxicity to algae/aquatic plants:

ErC50, Pseudokirchneriella subcapitata (green algae), 96 Hour, Growth rate inhibition, 1.5 mg/l, OECD Test Guideline 201 or Equivalent
NOEC, Pseudokirchneriella subcapitata (green algae), 96 Hour, Growth rate inhibition, 0.243 mg/l, OECD Test Guideline 201 or Equivalent

Toxicity to bacteria: EC50, activated sludge, 1,504 mg/l

Toxicity to Above Ground Organisms: Material is slightly toxic to birds on a dietary basis (LC50 between 1001 and 5000 ppm). Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg).

oral LD50, Anas platyrhynchos (Mallard duck), > 2,510 mg/kg
dietary LC50, Colinus virginianus (Bobwhite quail), 3,223 ppm
dietary LC50, Anas platyrhynchos (Mallard duck), > 5,620 ppm

Biodegradation: no data available for this product.

Persistence: no data available for this product.

Bioaccumulative potential: no data available for this product. Based on ingredient studies, this product is not expected to bioconcentrate in organisms.

Mobility in soil: no data available for this product.

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 product. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

13. DISPOSAL CONSIDERATIONS

See section 8.

Disposal Instructions: Collect and reclaim or dispose in sealed containers, HDPE containers recommended, through a licensed disposal company. Do not allow this material to drain into sewers or water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents and container in accordance with local, regional, national and international regulations.

Contaminated packaging: If emptied containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

DOT (US): Not regulated by DOT.

Reportable Quantity (RQ): None required.

Poison Inhalation Hazard: No

15. REGULATORY INFORMATION

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SARA 302 Components (Extremely Hazardous Substances)
None of the ingredients are known to be subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components: 3,5,7-Triaza-1-azoniatricyclo[3.3.1.13,7]decane,1-(3-chloro-2-propenyl)- , chloride (CTAC) CAS# 4080-31-3

SARA 311/312 Hazards: Acute (Immediate) Health Hazard. Chronic (Delayed) Health Hazard.

CERCLA Hazardous Substance List (40 CFR 302.4): None known

16. OTHER INFORMATION

HMIS & NFPA Ratings: Health = 1 Fire = 0 Reactivity = 0
HMIS & NFPA ratings involve data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this SDS must be considered.

Abbreviations:
ACGIH = American Conference of Governmental Industrial Hygienists
CAS = Chemical Abstract Service
GHS = Globally Harmonized System
HCS = Hazard Communication Standard
LD = Lethal Dose
NIOSH = National Institute for Occupational Safety & Health
OSHA = Occupational Safety and Health Administration
PEL = Permissible Exposure Limit
RTECS = Registry of Toxic Effects of Chemical Substances
SARA = Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986)
STEL = Short Term Exposure Limit (based on 15-minute exposures)
TC = Toxic Concentration

TLV = Threshold Limit Values
TWA = Time Weighted Average limit or ceilings (C) (exposure limit) (based on 8 hour/day, 40 hour/week exposures)

DISCLAIMER: The information contained herein is based upon data obtained from sources believed to be reliable and reflects our best professional judgment. Since it is impossible to anticipate all of the conditions under which our products may be used, we do not guarantee that the recommendations will be adequate for all individuals and situations. Each user of this product should determine the suitability of the product for his or her particular purpose and should comply with all federal, state and local regulations. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. We shall not be held liable for any damage resulting from handling or from contact with the above product or from improper use of our products. We do not provide any warranties, expressed or implied, and do not assume any responsibility for the accuracy or completeness of the data contained herein. This information is offered for your information, consideration, and investigation. You should satisfy yourself that you have all current data relevant to your particular use. We update SDS and labels on a regular basis. Please do not hesitate to contact us for current information.

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