



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name ABT
CAS # Mixture
Product Use Rinse additive
Manufacturer CFR Division of Tacony Corporation
3101 Wichita Court
Fort Worth, TX 76140-1710 US
Phone: 1-800-880-2913 ext.150

LEGEND HMIS	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	/ 2
Flammability	0
Physical Hazard	0
Personal Protection	C

2. Hazards Identification

Emergency Overview WARNING
CAUSES EYE AND SKIN IRRITATION.

Potential short term health effects

Routes of exposure Eye, Skin contact, Inhalation, Ingestion.

Eyes Causes irritation.

Skin May cause severe irritation.

Inhalation Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).

Ingestion May cause stomach distress, nausea or vomiting.

Target organs Eyes. Skin. Mucous membranes.

Chronic effects Prolonged or repeated exposure to dilutions can cause drying, defatting and dermatitis.

Signs and symptoms Symptoms can include irritation, redness, scratching of the cornea, and tearing.

3. Composition/Information on Ingredients

Ingredient(s)	CAS #	Percent
Citric Acid	77-92-9	3 - 7

4. First Aid Measures

First aid procedures

Eye contact Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.

Skin contact Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.

Inhalation If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

Ingestion Do not induce vomiting. Rinse mouth with water, then drink one or two glasses of water. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.

General advice If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire-fighting Measures

Flammable properties	Not flammable by WHMIS criteria.
Extinguishing media	
Suitable extinguishing media	Dry chemical. Water spray. Foam. Carbon dioxide.
Unsuitable extinguishing media	Not available
Protection of firefighters	
Specific hazards arising from the chemical	Not available
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Hazardous combustion products	May include and are not limited to: Oxides of carbon.
Explosion data	
Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Methods for containment	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use.

7. Handling and Storage

Handling	Use good industrial hygiene practices in handling this material. Do not get this material in your eyes, on your skin, or on your clothing.
Storage	Keep out of the reach of children. Store in a closed container away from incompatible materials.

8. Exposure Controls / Personal Protection

Exposure limits	
Ingredient(s)	Exposure limits
Citric Acid	ACGIH-TLV TWA: 10 mg/m ³
Engineering controls	Use only under good ventilation conditions or with respiratory protection.
Personal protective equipment	
Eye/Face protection	Wear chemical goggles.
Hand protection	Rubber gloves. Confirm with a reputable supplier first.
Skin and body protection	As required by employer code.
Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
General hygiene considerations	Use good industrial hygiene practices in handling this material. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical & Chemical Properties

Appearance	Clear.
Colour	Light tan
Form	Liquid
Odour	Mild organic
Odour threshold	Not available

Physical state	Liquid
pH	1.95 - 2.05
Melting point	Not available
Freezing point	Not available
Boiling point	> 100 °C (> 212.00 °F)
Flash point	Not available
Evaporation Rate	Not available
Flammability limits in air, lower, % by volume	Not available
Flammability Limits in Air, Upper, % by Volume	Not available
Vapour pressure	Not available
Vapour density	Not available
Specific gravity	1.01 - 1.05
Octanol/water coefficient	Not available
Solubility (H2O)	Complete
Auto-ignition temperature	Not available
VOC (Weight %)	Not available
Viscosity	Not available
Percent volatile	Not available

10. Chemical Stability & Reactivity Information

Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Reacts violently with alkaline material. This product may react with reducing agents. Do not mix with other chemicals.
Incompatible materials	Bases. Reducing agents. Oxidizers. Metals.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon.
Possibility of hazardous reactions	Hazardous polymerisation does not occur.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	LC50
Citric Acid	Not available

Component analysis - Oral LD50

Ingredient(s)	LD50
Citric Acid	5040 mg/kg mouse; 3000 mg/kg rat

Effects of acute exposure

Eye	Causes irritation.
Skin	May cause severe irritation.
Inhalation	Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).
Ingestion	May cause stomach distress, nausea or vomiting.
Sensitisation	Non-hazardous by WHMIS criteria.
Chronic effects	Non-hazardous by WHMIS criteria.
Carcinogenicity	Non-hazardous by WHMIS criteria.
Mutagenicity	Non-hazardous by WHMIS criteria.
Reproductive effects	Non-hazardous by WHMIS criteria.
Teratogenicity	Non-hazardous by WHMIS criteria.

12. Ecological Information

Ecotoxicity effects	Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.	
Ecotoxicity - Freshwater Fish Species Data		
Citric Acid	77-92-9	96 Hr LC50 Lepomis macrochirus: 1516 mg/L [static]; 96 Hr LC50 Leuciscus idus: 440 mg/L [static]
Ecotoxicity - Microtox Data		
Citric Acid	77-92-9	15 min EC50 Photobacterium phosphoreum: 14 mg/L
Ecotoxicity - Water Flea Data		
Citric Acid	77-92-9	72 Hr EC50 Daphnia magna: 120 mg/L
Environmental effects	Not available	
Aquatic toxicity	Not available	
Persistence and degradability	Not available	
Bioaccumulation/accumulation	Not available	
Partition coefficient	Not available	
Mobility in environmental media	Not available	
Chemical fate information	Not available	

13. Disposal Considerations

Waste codes	Not available
Disposal instructions	Review federal, provincial, and local government requirements prior to disposal.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

Transportation of Dangerous Goods (TDG)

Not regulated as dangerous goods.

15. Regulatory Information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Canada - WHMIS - Ingredient Disclosure List

Citric Acid	77-92-9	1 %
-------------	---------	-----

WHMIS classification Class D - Division 2B

WHMIS status Controlled

WHMIS labeling



Inventory Status

Country(s) or region	Inventory Name	On Inventory (Yes/No)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

Disclaimer

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

Issue date

09-Jan-2008

Effective Date

31-Jan-2008

Expiry Date

31-Jan-2011