

MATERIAL SAFETY DATA SHEET

ADAMS CITRUS CLEANER/DEGREASER

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: ADAMS CITRUS CLEANER/DEGREASER

PART No.: APS100QC, APC900

UN/NA (PIN) No.: UN2319

APPLICATIONS: Cleaner

EMERGENCY TELEPHONE: Info Trac - (800) 535-5053

SUPPLIER: Chemtool Incorporated
8200 Ridgely Road
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2. COMPOSITION, INFORMATION ON INGREDIENTS

INGREDIENT NAME:	CAS No.:	CONTENTS :	EPA RQ:	TPQ:
ETHANOL, 2,2'-IMINOBIIS- (DIETHANOLAMINE)	111-42-2	1-5 %	100 lbs	N/A

COMPOSITION COMMENTS:

Refer to section eight for exposure limits on ingredients.
Chemical ingredients not regulated by OSHA or SARA are treated confidentially.

3. HAZARDS IDENTIFICATION

Concentrate may cause irritation to eyes and skin. Prolonged exposure to product mist or vapors may cause respiratory irritation.

Preliminary reports from chronic (lifetime) dermal exposure studies in rats and mice exposed to diethanolamine (DEA) have been recently released by the sponsor of these studies, the National toxicology Program (NTP). In these studies, rats dermally exposed to diethanolamine concentrations of up to 32 milligrams (mg) of DEA per kilogram (kg) of body weight (mg/kg/day) did not show an increased incidence of tumors. However, mice dermally exposed to DEA concentrations of 40 to 160 mg/kg/day showed an increased incidence of liver tumors in both male and female mice, as well as an increased incidence of kidney tumors in male mice. In their preliminary report, NTP has concluded that there is "no evidence" of cancer in male and female rats, and "clear evidence" of liver and kidney cancer in male mice, and "clear evidence" of liver cancer in female mice.

CHRONIC EFFECTS:

SENSITIZATION:

No known information.

CARCINOGENICITY:

IARC: Not listed. OSHA: Not regulated. NTP: Not listed.
* IARC (International Agency for Research on Cancer)
* NTP (National Toxicology Program)
*OSHA (Occupational Safety and Health Administration)

REPRODUCTION/TERATOGENICITY:

No data available to indicate product or any components contained at greater than 0.1% may cause birth defects.

HEALTH WARNINGS:

INHALATION. Heating can generate vapors that may cause respiratory irritation, nausea and headaches. Inhalation hazard at room temperature is unlikely due to the low volatility of this product. Inhalation of product vapor or mist may cause irritation of mucous membranes in nasal passages and throat. SKIN CONTACT. Slightly irritating. Repeated or prolonged contact can result in drying of the skin. EYE CONTACT. Irritating. Liquid, vapor and mists may cause discomfort in the eye with severe transient conjunctivitis. Serious corneal injury is not anticipated. INGESTION. Can cause stomach ache and vomiting. Main hazard, if ingested, is aspiration into the lungs and subsequent pneumonitis.

ROUTE OF ENTRY:

Inhalation. Ingestion. Skin and/or eye contact.

4. FIRST AID MEASURES

- INHALATION:** Remove victim immediately from source of exposure. When breathing is difficult, properly trained personnel may assist affected person by administering 100% oxygen. Perform artificial respiration if breathing has stopped. Get medical attention.
- INGESTION:** DO NOT INDUCE VOMITING! Administer large amounts of water. Get medical attention immediately! Never give anything by mouth to an unconscious person.
- SKIN:** Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
- EYES:** Important! Immediately rinse with water for at least 15 minutes. Get medical attention if any discomfort continues.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F): ~140 **METHOD:** Cd OC (Cleveland open cup).
FLAMMABILITY LIMIT - LOWER(%): N/D
FLAMMABILITY LIMIT - UPPER(%): N/D

EXTINGUISHING MEDIA:

Use: Foam. Carbon dioxide (CO₂). Dry chemicals, sand, dolomite etc. Water spray.

SPECIAL FIRE FIGHTING PROCEDURES:

Use water to keep fire exposed containers cool and disperse vapors. Water spray may be used to flush spills away from exposures and dilute spills to non-flammable mixtures. Keep run-off water out of sewers and water sources. Dike for water control. Avoid water in straight hose stream; will scatter and spread fire.

UNUSUAL FIRE & EXPLOSION HAZARDS:

Pressure will increase in over heated, closed containers.

HAZARDOUS COMBUSTION PRODUCTS:

Acrid smoke/fumes. Oxides of: Carbon. Nitrogen.

PROTECTIVE MEASURES IN CASE OF FIRE:

Self-contained breathing equipment and chemical resistant clothing recommended.

6. ACCIDENTAL RELEASE MEASURES**PERSONAL PRECAUTIONS:**

Minimize skin contact. Remove sources of ignition.

PRECAUTIONS TO PROTECT THE ENVIRONMENT:

Keep product out of sewers and watercourses by diking or impounding. Advise authorities if product has entered or may enter sewers, watercourses or extensive land areas. Assure conformity with applicable government regulations.

SPILL CLEAN-UP PROCEDURES:

Keep all sources of ignition and hot metal surfaces away from spill. Avoid contact with eyes or skin. Place leaking containers in well ventilated area. If fire potential exists, blanket spill with foam or use water spray to disperse vapors. Contain spill to minimize contaminated area and facilitate salvage or disposal. To clean up spill, flush area sparingly with water or use absorbant material. Avoid discharge to natural water ways.

7. HANDLING AND STORAGE**HANDLING PRECAUTIONS:**

Keep lid closed when not in use. Do not reuse container. Do not store or mix with strong oxidizers. Product contains amines, do not mix with nitrites. Keep away from heat, sparks and open flame. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Avoid spilling, skin and eye contact. Eye wash and emergency shower must be available at the work place.

STORAGE PRECAUTIONS:

Keep away from heat, sparks and open flame. Store separate from strong acids and oxidizers.

STORAGE CRITERIA:

Chemical storage.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

INGREDIENT NAME:	CAS No.:	OSHA PEL:		ACGIH TLV:		OTHER:		UNITS:
		TWA:	STEL:	TWA:	STEL:	TWA:	STEL:	
ETHANOL, 2,2'-IMINOBIIS-(DIETHANOLAMINE)	111-42-2	3	N.E.	0.46	N.E.	3	N/A	ppm

PROTECTIVE EQUIPMENT:**ENGINEERING CONTROLS:**

Use engineering controls to reduce air contamination to permissible exposure level.

VENTILATION: No specific ventilation requirements noted, but forced ventilation may still be required if air contamination exceeds acceptable level.

RESPIRATORS: No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.

PROTECTIVE GLOVES:

For prolonged or repeated skin contact use suitable protective gloves. Use protective gloves made of: latex.

EYE PROTECTION:

Wear splash-proof eye goggles to prevent any possibility of eye contact.

PROTECTIVE CLOTHING:

Wear appropriate clothing to prevent repeated or prolonged skin contact.

HYGIENIC WORK PRACTICES:

Wash at the end of each work shift and before eating, smoking and using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE:	Liquid.
COLOR:	Green. or Amber.
ODOR:	Citrus
SOLUBILITY DESCRIPTION:	Soluble in water.

BOILING POINT (°F, interval):	~212	PRESSURE: 760mmHg
DENSITY/SPECIFIC GRAVITY (g/ml):	~0.97	TEMPERATURE (°F): 61
VAPOR DENSITY (air=1):	>1	
EVAPORATION RATE:	<1	REFERENCE: BuAc=1
pH-VALUE, CONC. SOLUTION:	~ 9.7	

10. STABILITY AND REACTIVITY

STABILITY: Normally stable.

CONDITIONS TO AVOID:

Avoid heat, flames and other sources of ignition. Avoid contact with strong oxidizers.

HAZARDOUS POLYMERIZATION:

Will not occur.

POLYMERIZATION DESCRIPTION:

Not applicable

HAZARDOUS DECOMPOSITION PRODUCTS:

Oxides of: Carbon. Nitrogen.

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

No experimental toxicological data on the preparation as such is available.

12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:

There is no ecological data on the product itself.

BIOACCUMULATION:

Not determined.

BIODEGRADABILITY:

Not determined.

ACUTE AQUATIC TOXICITY:

Not determined.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS:

Spilled material, unused contents and empty containers must be disposed of in accordance with local, state and federal regulations.

14. TRANSPORT INFORMATION

PROPER SHIPPING DESCRIPTION I:

Terpene hydrocarbons, n.o.s.

PRODUCT RQ:

3,571 pounds due to DIETHANOLAMINE.

U.S. DOT:

UN/NA No.:

UN2319

U.S. DOT HAZARD LABEL: COMBUSTIBLE (Red diamond) DOT10
U.S. DOT CLASS: Combustible Liquid.
INFORMATION ON ROAD TRANSPORT: Only regulated in containers of 119 gallons or more.

15. REGULATORY INFORMATION

REGULATORY STATUS OF INGREDIENTS:

NAME:	CAS No:	TSCA:	CERCLA:	SARA 302:	SARA 313:	DSL(CAN):
ETHANOL, 2,2'-IMINOBIS-(DIETHANOLAMINE)	111-42-2	Yes	Yes	N/A	Yes	Yes

US FEDERAL REGULATIONS: REGULATORY STATUS:

This Product or its components, if a mixture, is subject to following regulations (Not meant to be all inclusive - selected regulations represented): TSCA: The ingredients of this product are on the TSCA Inventory. SARA 311 Categories: 3. Fire Hazard. Canadian WHMIS Classification. DIETHANOLMAINE, CAS# 111-42-2 at 2 - 3%. SECTION 313: This product contains toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372. GLYCOL ETHERS at ~10%.

STATE REGULATIONS: STATE REGULATORY STATUS:

This product or its components, if a mixture, is subject to following regulations (Not meant to be all inclusive - selected regulations represented):. PROPOSITION 65: This product contains the following chemical(s) considered by the State of California's Safe Drinking Water and Toxic Enforcement Act of 1986 as causing cancer or reproductive toxicity, and for which warnings are now required:
 TRISODIUM NITRILOTRIACETATE
 CADMIUM
 CHROMIUM

CANADIAN REGULATIONS: LABELS FOR SUPPLY:



REGULATORY STATUS:

This Material Safety Data Sheet has been prepared in compliance with the Controlled Product Regulations.

16. OTHER INFORMATION

NFPA HAZARD RATING:

HEALTH:	Irritation, minor residual injury (1)
FLAMMABILITY:	Burns only if heated moderately (2).
REACTIVITY:	N/A (0).
SPECIAL HAZARD:	N/A

NPCA HMIS HEALTH:	1 Slight Hazard
PERS. PROTECT. INDEX:	B

PREPARED BY: Stacey Lorenz

DATE: July 25, 2001

DISCLAIMER:

While the information and recommendations set forth herein are believed to be accurate as of the date thereof, Chemtool Incorporated makes no warranty with respect thereto and disclaims all liability from reliance therein.