

ENTHONE

MATERIAL SAFETY DATA SHEET

Health	3
Flammability	3
Reactivity	1
Personal Protection	

In Case of Emergency

CHEMTREC Number
(800) 424-9300

Section 1. Chemical Product and Company Identification

Product Name ENTHONE® AD3002 FLOW AGENT
Product Code Number(s) 135182
135183
135184
Material Uses Specialty chemicals for the electronics and surface finishing industries.
Manufacturer ENTHONE
350 Frontage Road
West Haven, CT 06516
(203) 799-4917
(203) 799-8179 (fax)
www.cooksonelectronics.com
Supersedes Date 12/18/97 **Revision No.** 1
Print Date 1/23/2003. **Validation Date** 1/23/2003.
Prepared by Anton Mayer - Regulatory Specialist

Section 2. Composition, Information on Ingredients

Name	CAS #	% by Weight
XYLENE	1330-20-7	40-50
ACRYLIC RESIN	Proprietary	40-50
ETHYL BENZENE	100-41-4	5-10

All ingredients comply with applicable rules or orders under TSCA

Section 3. Hazards Identification

Physical State and Appearance Liquid. **Odor** Faint Odor **Color** Colorless.

Emergency Overview WARNING!
Hazardous in case of ingestion.

Routes of Entry Absorbed through skin. Eye contact. Inhalation. Ingestion.

Potential Acute Health Effects
Eyes Hazardous in case of eye contact (irritant).
Skin Slightly hazardous in case of skin contact (irritant, permeator). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
Inhalation Very hazardous in case of inhalation. Vapor reduces oxygen available for breathing.
Ingestion Hazardous in case of ingestion.

Medical Conditions Caused or Aggravated by Overexposure Repeated or prolonged exposure may cause dermatitis due to defatting of skin and possible liver and kidney damage. Exposure to high levels may cause central nervous system depression

Continued on Next Page

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Get medical attention.
Skin Contact	Wash with soap and water. Get medical attention if irritation develops.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion	If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Section 5. Fire Fighting Measures

Flammability of the Product	Flammable.
Flash Points	Open cup: 27.22°C (81°F) (Tag Open Cup).
Products of Combustion	These products are carbon oxides (CO, CO2) nitrogen oxides (NO, NO2...)
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Protective Equipment (Fire)	Wear NIOSH approved self-contained breathing apparatus or equivalent and full protective gear.
Special Remarks on Fire and Explosion Hazards	Vapors may travel to sources of ignition distant from point of handling or spillage.

Section 6. Accidental Release Measures

Small Spill and Leak	Absorb with an inert material and place in an appropriate waste disposal container.
Large Spill and Leak	Keep away from heat. Keep away from sources of ignition. Stop leak if without risk.

Section 7. Handling and Storage

Handling	Keep away from heat, sparks and flame. Keep container closed. Use only with adequate ventilation. To avoid fire, minimize ignition sources.
Storage	Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

Section 8. Exposure Controls, Personal Protection

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.
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Personal Protection

Eyes Splash goggles.

Body Synthetic apron.

Respiratory Respirator selection must be based on known or anticipated exposure levels, the hazards of the product, and the safe working limits of the selected respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent.

Hands Chemical resistant gloves. Butyl rubber gloves. Nitrile gloves.

Feet Boots.

Protective Equipment (Pictograms)



Personal Protection in Case of a Large Spill

Splash goggles. Full suit. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Ingredient Name

Exposure Limits

XYLENE

ACGIH TLV (United States, 2000).
STEL: 651 mg/m³ 15 minute(s).
STEL: 150 ppm 15 minute(s).
TWA: 434 mg/m³ 8 hour(s).
TWA: 100 ppm 8 hour(s).

OSHA PEL 1989 (United States, 1989).
STEL: 655 mg/m³ 15 minute(s).
STEL: 150 ppm 15 minute(s).
TWA: 435 mg/m³ 8 hour(s).
TWA: 100 ppm 8 hour(s).

ETHYL BENZENE

ACGIH TLV (United States, 2002).
STEL: 125 ppm 15 minute(s).
TWA: 100 ppm 8 hour(s).

NIOSH REL (United States, 2001).
STEL: 545 mg/m³ 15 minute(s).
STEL: 125 ppm 15 minute(s).
TWA: 435 mg/m³ 10 hour(s).
TWA: 100 ppm 10 hour(s).

OSHA PEL 1989 (United States, 1989).
STEL: 545 mg/m³ 15 minute(s).
STEL: 125 ppm 15 minute(s).
TWA: 435 mg/m³ 8 hour(s).
TWA: 100 ppm 8 hour(s).

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid.	Odor	Faint Odor	Color	Colorless.
pH	Not applicable.				
Boiling Point	Not available.				
Melting/Freezing Point	Not available.				
Specific Gravity	0.871 (Water = 1)				
VOC	467 (g/l).				
Solubility	Soluble in Butyl acetate.				

Section 10. Stability and Reactivity

Stability and Reactivity	Stable under recommended storage and handling conditions (see section 7).
Conditions of Instability	Keep away from heat, sparks and flame.
Incompatible Substances	Reactive with oxidizing agents.
Hazardous Decomposition Products	In a fire: toxic oxides of carbon and nitrogen.
Hazardous Polymerization	Will not occur.

Section 11. Toxicological Information

Toxicity Data

<u>Ingredient Name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
ETHYL BENZENE	LD50	3500 mg/kg	Oral	Rat
XYLENE	LD50	4300 mg/kg	Oral	Rat
	LD50	4300 mg/kg	Oral	Mammal
	LD50	4300 mg/kg	Oral	Mammal
	LD50	>1700 mg/kg	Dermal	Rabbit
	LDLo	50 mg/kg	Oral	human

Chronic Effects on Humans **CARCINOGENIC EFFECTS:** Classified A3 (Proven for animal.) by ACGIH, 2B (Possible for human.) by IARC [ETHYL BENZENE].
MUTAGENIC EFFECTS: None identified.
TERATOGENIC EFFECTS: None identified.

Special Remarks on Toxicity Aspiration hazard if swallowed- can enter lungs and cause damage.

Special Remarks on Other Toxic Effects on Humans Repeated excessive exposures may cause minor lung, liver and kidney effects. Signs and symptoms of excessive exposure may be anesthetic or narcotic effects.

Any component listed in this section that is not listed in Section 2 is present in the product in concentrations below legal disclosure limits (1% for hazardous components and 0.1% for carcinogens)

Continued on Next Page

Section 12. Ecological Information

Enthone has not conducted specific studies on the ecotoxicity or environmental fate of this product.

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Waste Stream Dispose of according to all federal, state and local applicable regulations.

Section 14. Transport Information

DOT Classification 3
UN number UN1210
Proper shipping name PRINTING INK, CLASS 3
Packing Group III

This Transport Information applies only to the Product Code Number(s) listed in Section 1. Other container sizes may require different Transport Information. If assistance is required, contact Regulatory Affairs at 203-799-4936.

Section 15. Regulatory Information

U.S. Federal Regulations SARA 313 toxic chemical notification and release reporting: ETHYL BENZENE; XYLENE

All ingredients comply with applicable rules or orders under TSCA

State Regulations

California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: TOLUENE
California prop. 65 (acceptable daily intake level): TOLUENE: 7000 mg/day (value), 13000 mg/day (inhalation)

Any component listed in this section that is not listed in Section 2 is present in the product in concentrations below legal disclosure limits (1% for hazardous components and 0.1% for carcinogens).

Section 16. Other Information

Definition of Terms

ACGIH	American Conference of Governmental Industrial Hygienists
Ceiling	Maximum exposure limit defined by OSHA
CAS	Chemical Abstract Service
IARC	International Agency for Research on Cancer
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
REL	Recommended Exposure Limit
RTK	Right to Know
SARA	Superfund Amendments and Reauthorization Act
STEL	Short Term Exposure Limit
TLV	ACGIH Threshold Limit Value
TLV-C	ACGIH Threshold Limit Value, Ceiling
TRADE SECRET	Claimed as allowed under 29CFR§1910.1200
TSCA	Toxic Substances Control Act

Disclaimer

This Material Safety Data Sheet may be used to comply with OSHA's Hazard Communication Standard, 29CFR§1910.1200. Enthone furnishes the data contained herein in good faith at customer's request without liability or legal responsibility for same whatsoever, and no warranty or guarantee, express or implied, is made with respect to such data; nor does Enthone grant permission, recommendation, or inducement to infringe any patent whether owned by Enthone or others. The data is offered solely for your information and consideration. Since conditions of use are beyond Enthone's control, user assumes all responsibility and risk.

