



**Albemarle Corporation**  
**Material Safety Data Sheet**  
451 Florida Street, Baton Rouge, LA 70801  
For Emergencies Only - Phone (225) 344-7147  
For Non-Emergency Health & Safety Phone 1-800-535-3030  
Representing Albemarle Foreign Sales Corporation  
for Export Sales

ISSUE DATE: 08/28/06  
SUPERSEDES: 09/26/03  
HMIS CLASSIFICATIONS:  
HEALTH: 1  
FLAMMABILITY: 1  
REACTIVITY: 0

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PRODUCT IDENTIFICATION

PRODUCT NAME: ETHANOX 310 Antioxidant; ETHANOX 310P  
Antioxidant; ETHANOX 310G Antioxidant

CHEMICAL NAME: Pentaerythritol tetrakis(3-(3,5-di-t-butyl-4-hydroxyphenyl)propionate)

CAS NO.: 6683-19-8

SYNONYMS: Pentaerythritol tetra(3,5-di-t-butyl-4-hydroxyhydrocinnamate),  
Tetrakis(methylene(3,5-di-t-butyl-4-hydroxyhydrocinnamate)methane

CHEMICAL FORMULA: C73H108O12

CHEMICAL FAMILY: Phenolic Antioxidants

ETHANOX is a registered trademark of Albemarle Corporation.

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SUMMARY OF HAZARDS

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OSHA HAZARDOUS COMPONENTS

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CHEMICAL AND PHYSICAL PROPERTIES

APPEARANCE/ODOR: White crystalline powder/granular/pellet/no odor.

BOILING POINT: Not applicable.

VAPOR PRESSURE: <10(-6) Torr @20C/68F.

SOLUBILITY IN WATER: Insoluble.

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SPECIFIC GRAVITY: 1.1  
MOLECULAR WEIGHT: 1177.7  
MELTING POINT: 110-125C

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FIRE AND EXPLOSION HAZARDS

FLASH POINT(METHOD): 280C/536F (COC).  
FLAMMABLE LIMITS: Not applicable.  
EXTINGUISHING MEDIA: Dry chemical, water spray (fog), foam  
or carbon dioxide.  
SPECIAL FIRE FIGHTING PROCEDURES: Avoid breathing smoke or  
fumes. Use self-contained breathing apparatus.  
UNUSUAL FIRE AND EXPLOSION HAZARDS: Compounds containing  
phenolic groups are known to have a severe dust  
explosivity rating. See 'Additional Precautions'  
section for safety measures.  
HAZARDOUS THERMAL DECOMPOSITION PRODUCTS: Include carbon  
monoxide, carbon dioxide, and other toxic products.

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REACTIVITY DATA

STABILITY: Stable.  
CONDITIONS TO AVOID: Dusting and static (explosive hazard),  
extremely high temperatures.  
MATERIALS TO AVOID: Strong oxidants, strong acids, strong  
bases.  
HAZARDOUS POLYMERIZATION: Will not occur.

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HEALTH HAZARDS

INHALATION: Not expected to be toxic or irritating. Do not  
breathe fumes from fires or decomposition.  
EYE CONTACT: Not expected to be an eye irritant.  
SKIN CONTACT: Not expected to be a skin irritant.  
INGESTION: Not expected to be a primary route of exposure.  
CHRONIC EFFECTS OF OVEREXPOSURE: None known.

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EMERGENCY FIRST AID PROCEDURES

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INHALATION: If inhaled, remove to fresh air.

EYE CONTACT: Begin immediate eye irrigation with cool water.

SKIN CONTACT: Wash contaminated areas with soap and water.  
Wash clothing before reuse.

INGESTION: If swallowed, give two glasses of water.

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EXPOSURE CONTROL INFORMATION

EXPOSURE LIMITS: Not established by OSHA/ACGIH.

EYE PROTECTION: Chemical goggles or safety glasses.

PROTECTIVE GLOVES: Resistant to chemical penetration.

RESPIRATORY PROTECTION: NIOSH approved dust/mist respirator.

MECHANICAL VENTILATION: Recommended.

LOCAL EXHAUST VENTILATION: At source of dust.

OTHER: If repeated or prolonged skin contact or  
contamination of clothing is likely, protective clothing  
should be worn.

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ENVIRONMENTAL PROTECTION

SPILLS OR LEAKS: Sweep or shovel spills into appropriate  
container for disposal.

DISPOSAL METHODS: To the best of Albemarle's knowledge, this  
product is not regulated by CERCLA/RCRA as a hazardous  
waste or material. However, this product has not been  
tested for the toxicity characteristic via the Toxicity  
Characteristic Leaching Procedure. Therefore, it may be  
disposed of as an industrial waste in a manner  
acceptable to good waste management practice and in  
compliance with applicable local, state and federal  
regulations.

STORAGE REQUIREMENTS: Store in well-ventilated, cool, dry  
area. Close container when not in use.

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ADDITIONAL PRECAUTIONS OR COMMENTS

Employ bonding, grounding, venting, and explosion relief  
provisions in accord with accepted engineering practices  
in process operations capable of generating dust and/or  
static electricity. Explosion hazard can be reduced by  
good housekeeping, prevention of the escape of dust from  
process equipment, and prevention of accumulation of

dust on overhead, horizontal surfaces. In addition, a continuing effort should be made to control ignition sources.

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REGULATORY INFORMATION

TSCA:

THIS MATERIAL IS IN COMPLIANCE WITH THE TOXIC SUBSTANCES CONTROL ACT (15 USC 2601 - 2629).

DOT DESCRIPTION/PROPER SHIPPING NAME:

Not regulated for transportation.

HAZARD CATEGORIES FOR SARA 311/312 REPORTING ARE INDICATED BELOW:

HEALTH	Immediate (Acute)	No
HEALTH	Delayed (Chronic)	No
PHYSICAL	Fire	No
PHYSICAL	Sudden Release of Pressure	No
PHYSICAL	Reactive	No
	Nuisance Mist/Dust Only	No

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ADDRESS CONTACT INFORMATION

MSDS prepared by: Health & Environment Department  
Albemarle Corporation

FOR ADDITIONAL NONEMERGENCY PRODUCT INFORMATION, CONTACT:

HEALTH AND ENVIRONMENT DEPARTMENT  
ALBEMARLE CORPORATION  
451 FLORIDA ST.  
BATON ROUGE, LA. 70801  
(800) 535-3030

THIS MATERIAL SAFETY DATA SHEET CONTAINS AT LEAST THE INFORMATION REQUIRED BY THE FEDERAL OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200 (g) (2).

THE RESPONSIBILITY TO PROVIDE A SAFE WORKPLACE REMAINS WITH USER. THE USER SHOULD CONSIDER THE HEALTH HAZARDS AND SAFETY INFORMATION CONTAINED HEREIN AS A GUIDE AND SHOULD TAKE THOSE PRECAUTIONS REQUIRED IN AN INDIVIDUAL OPERATION TO INSTRUCT EMPLOYEES AND TO DEVELOP WORK PRACTICE PROCEDURES FOR A SAFE WORK ENVIRONMENT.

THE INFORMATION CONTAINED HEREIN IS, TO THE BEST OF OUR KNOWLEDGE AND BELIEF, ACCURATE. HOWEVER, BECAUSE THE CONDITIONS OF HANDLING AND USE ARE BEYOND OUR CONTROL, WE MAKE NO GUARANTEE OF RESULTS, AND ASSUME NO LIABILITY FOR DAMAGES INCURRED BY THE USE OF THIS MATERIAL. IT IS THE RESPONSIBILITY OF THE USER TO COMPLY WITH ALL FEDERAL,

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STATE, AND LOCAL LAWS AND REGULATIONS.

08/28/06