



# MATERIAL SAFETY DATA SHEET

MSDS Number: 00143  
Product Name: Lowinox<sup>®</sup> GP 45 Powder and  
Lowinox<sup>®</sup> GP 45 Granular

Effective Date: 01/16/2006  
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## SECTION I - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Lowinox<sup>®</sup> GP 45 Powder and Lowinox<sup>®</sup> GP 45 Granular  
**Supplier:** Chemtura USA Corporation  
**Address:** 199 Benson Road **City:** Middlebury  
**State:** Connecticut **Zip:** 06749  
**Emergency Telephone Number:** 1-800-949-5167  
**Information Telephone Number:** 1-765-497-6100 **Fax:** 1-765-497-6123  
**Chemtree Phone:** 1-800-424-9300; Internationally call 703-527-3887  
**Effective Date:** 01/16/2006 **Supersede Date:** 03/18/2005  
**MSDS Prepared By:** Chemtura Product Safety Group  
**Synonyms:** Triethyleneglycol- bis(3-tert-butyl-4-hydroxy-5-methylphenyl)propionate;  
Ethylenebis(oxyethylene)bis[3-(5-tert-butyl-4-hydroxy-m-tolyl)propionate]  
**Product Use:** Antioxidant  
**Chemical Name:** Benzenepropanoic acid, 3-(1,1-dimethyl)-4-hydroxy-5-methyl-1,2-ethanediyl bis(oxy-2,1-ethanediyl) ester  
**Chemical Family:** Sterically hindered phenol

### Additional Information

Manufacturer:  
Great Lakes Chemical Corporation, A Chemtura Company  
P.O. Box 2200  
West Lafayette, Indiana 47996-2200

## SECTION II - COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS No.	%	EXPOSURE LIMITS
Triethyleneglycol- bis(3-tert-butyl-4-hydroxy-5-methylphenyl)propionate	36443682	>96	Y (Hazardous) 15 mg/m <sup>3</sup> (PNOR) (OSHA PEL TWA) Not established (OSHA PEL STEL) Not established (OSHA PEL CEIL) 10 mg/m <sup>3</sup> (PNOS) (ACGIH TLV TWA) Not established (ACGIH TLV STEL) Not established (ACGIH TLV CEIL)

\*Indented chemicals are components of previous ingredient.

### Additional Information

5 mg/m<sup>3</sup> Respirable Dust Level (OSHA)  
3 mg/m<sup>3</sup> Respirable Dust Level (ACGIH)  
PNOR = Particulates Not Otherwise Regulated  
PNOS = Particulates Not Otherwise Specified

## SECTION III - HAZARDS IDENTIFICATION

**Emergency Overview:** White to off-white powder or granules  
Weak characteristic odor  
Dusts can form an explosive mixture with air.  
**Relevant Routes of Exposure:** Ingestion, inhalation and skin absorption  
**Signs and Symptoms of Overexposure:** No known signs and symptoms of exposure.

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## SECTION III - HAZARDS IDENTIFICATION

**Medical Conditions Generally** Liver disorders  
**Aggravated By Exposure:** Thyroid conditions  
**Potential Health Effects:** See Section XI for additional information.

**Eyes:** Not expected to be a hazard in normal industrial use.  
As with any dust, mechanical irritation is possible to the eye.

**Skin:** Not expected to be a hazard in normal industrial use.  
As with any dust, mechanical irritation is possible to the skin.

**Ingestion:** Not expected to be a hazard in normal industrial use.

**Inhalation:** As with any dust, mechanical irritation is possible to mucous membranes and the respiratory tract.

**Chronic Health Effects:** Long term overexposure may cause liver effects.  
Long term overexposure may cause thyroid effects.

**Carcinogenicity:**

<b>NTP:</b>	No	<b>ACGIH:</b>	No
<b>IARC:</b>	No	<b>OTHER:</b>	No
<b>OSHA:</b>	No		

### Additional Information

No information available

## SECTION IV - FIRST AID MEASURES

**Eyes:** Flush with large volumes of water for at least 15 minutes. Get medical attention.

**Skin:** Wash with large volumes of soap and water for at least 15 minutes. If irritation develops, get medical attention.

**Ingestion:** If conscious, give person 1 to 2 glasses of water. Get medical attention immediately.

**Inhalation:** Remove person to fresh air. Get medical attention.

**Antidotes:** No information available

**Notes to Physicians and/or Protection for First-Aiders:** No information available

### Additional Information

No information available

## SECTION V - FIRE FIGHTING MEASURES

**Flammable Limits in Air (% by Volume):** Not available

**Flash Point:** >150 degrees C

**Autoignition Temperature:** 390 degrees C (Spontaneous ignition temperature)

**Extinguishing Media:** All conventional media are suitable.

**Fire Fighting Instructions:** Wear a self-contained breathing apparatus and protective clothing to prevent skin and eye contact in fire situations.

**Unusual Fire and Explosion Hazards:** Under fire conditions, toxic and irritating fumes may be emitted.  
Dusts can form an explosive mixture with air.

**Flammability Classification:** Combustible dust

**Known or Anticipated Hazardous Products of Combustion:** Carbon monoxide and carbon dioxide

### Additional Information

No information available

## SECTION VI - ACCIDENTAL RELEASE MEASURES

**Accidental Release Measures:** Shut off all sources of ignition.

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## SECTION VI - ACCIDENTAL RELEASE MEASURES

Wearing appropriate personal protective equipment, carefully sweep up material and place in suitable labeled containers for disposal.

Avoid creating a dusting condition.

Use only non-sparking tools.

Wash spill area after pick-up is complete, collecting all clean up water for appropriate disposal.

**Personal Precautions:**

See Section VIII.

**Environmental Precautions:**

Avoid releasing to the environment.

### *Additional Information*

No information available

## SECTION VII - HANDLING AND STORAGE

**Handling:**

Use appropriate personal protection equipment.

Avoid eye, skin and clothing contact.

Avoid breathing dust.

Avoid repeated and prolonged contact.

Avoid creating a dusting situation.

Prevent buildup of static electricity.

All equipment should be properly grounded.

**Storage:**

Store in a cool, dry, well-ventilated area away from incompatible materials.

Keep container tightly closed.

Store away from heat, sparks, and flame.

**Other Precautions:**

No information available

### *Additional Information*

No information available

## SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls:**

Adequate general ventilation is recommended when handling to control airborne levels.

**Ventilation Requirements:**

Use local exhaust to minimize dusting.

Use mechanical ventilation for general area control.

**Personal Protective Equipment:**

**Eye/Face Protection:**

Chemical safety glasses with side shields or chemical safety goggles

**Skin Protection:**

Gloves - PVC

**Respiratory Protection:**

Clothing designed to minimize skin contact

Wear a NIOSH/MSHA approved dust respirator if dusting occurs, or there is potential for airborne exposures to exceed established threshold values.

Consult the OSHA respiratory protection information located at 29CFR 1910.134 and the American National Standard Institute's Practices of Respiratory Protection Z88.2.

**Other Protective Clothing or Equipment:**

No information available

**Exposure Guidelines:**

See Section II.

**Work Hygienic Practices:**

Wash thoroughly after handling.

Wash contaminated clothing before reuse.

### *Additional Information*

No information available

## SECTION IX - PHYSICAL & CHEMICAL PROPERTIES

**Appearance:**

White to off-white powder  
or granules

**Percent Volatile:**

Not available

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## SECTION IX - PHYSICAL & CHEMICAL PROPERTIES

<b>Boiling Point:</b>	Not available	<b>pH Value:</b>	Not available
<b>Bulk Density:</b>	430 kg/m <sup>3</sup>	<b>pH Concentration:</b>	Not available
<b>Color:</b>	White to off-white	<b>Physical State:</b>	Solid
<b>Decomposition Temperature:</b>	Not available	<b>Reactivity in Water:</b>	Not water reactive
<b>Evaporation Rate:</b>	Not available	<b>Saturated Vapor Concentration:</b>	Not available
<b>Freezing Point:</b>	Not available	<b>Softening Point:</b>	Not available
<b>Heat Value:</b>	Not available	<b>Solubility in Water:</b>	<0.1 g/L at 20 degrees C
<b>Melting Point:</b>	76-79 degrees C	<b>Specific Gravity or Density (Water=1):</b>	1.14 at 20 degrees C
<b>Molecular/Chemical Formula:</b>	C <sub>34</sub> H <sub>50</sub> O <sub>8</sub>	<b>Vapor Density:</b>	Not available
<b>Molecular Weight:</b>	586.84	<b>Vapor Pressure:</b>	<0.0001 mbar
<b>Octanol/Water Partition Coefficient:</b>	Not available	<b>Viscosity:</b>	Not available
<b>Odor:</b>	Weak characteristic	<b>Volatile Organic Compounds:</b>	Not available
<b>Odor Threshold:</b>	Not available	<b>Water/Oil Distribution Coefficient:</b>	Not available
<b>Particle Size:</b>	Not available	<b>Weight Per Gallon:</b>	Not available

*Additional Information*

No information available

## SECTION X - STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under normal conditions of handling and use.
<b>Conditions to Avoid:</b>	None
<b>Incompatibility With Other Materials:</b>	Strong oxidizers
<b>Hazardous Decomposition Products:</b>	Thermal decomposition may produce the following: Carbon monoxide and carbon dioxide
<b>Hazardous Polymerization:</b>	Will not occur
<b>Conditions to Avoid:</b>	None

*Additional Information*

No information available

## SECTION XI - TOXICOLOGICAL INFORMATION

VALUE (LD50 OR LC50)	ANIMAL	ROUTES	COMPONENTS
>2,000 mg/kg	Rat	Acute Oral	Triethyleneglycol- bis(3-tert-butyl-4-hydroxy-5-methylphenyl)propionate

**Toxicological Information:**

The toxicological properties of this material have not been fully determined.

This material has been determined not to be a primary eye irritant in rabbits.  
 This material has been determined not to be a primary skin irritant in rabbits.  
 This material did not cause sensitization in a guinea pig maximization study.  
 This material has been determined not to be a mutagen.  
 This material has been determined not to be a teratogen.

A subchronic feeding study in rats indicates that liver and thyroid effects are possible. However, a more recent study in monkeys with this material did not produce these effects. The pituitary-thyroid-liver axis as frequently observed in rodents may not extrapolate to primates including humans.

Other acute and chronic health hazards, as well as target organs, are unknown.

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As with all dusts, inhalation of air concentration levels above the PNOR may cause irritation and adverse lung effects.

## Additional Information

No information available

## SECTION XII - ECOLOGICAL INFORMATION

**Ecological Information:** The following ecological information is offered:

LC50 in rainbow trout (96H) >56 ppm  
LC50 in bluegill (96H) = 43 ppm  
EC50 in Daphnia magna (24H) = 55 ppm  
EC50 in bacteria (3H) >100 ppm

Not biodegradable in the Sturm Test.

Avoid releasing to the environment.

## Additional Information

No information available

## SECTION XIII - DISPOSAL CONSIDERATIONS

**Disposal Considerations:** Dispose of waste at an approved chemical disposal facility in compliance with all current Local, State/Province, Federal/Canadian laws and regulations.

## Additional Information

No information available

## SECTION XIV - TRANSPORT INFORMATION

### U.S. DOT

<b>Proper Shipping Name:</b>	Not regulated	<b>ID Number:</b>	N/A
<b>Hazard Class:</b>	N/A	<b>Labels:</b>	N/A
<b>Packing Group:</b>	N/A	<b>Packaging Exceptions:</b>	N/A
<b>Special Provisions:</b>	N/A	<b>Bulk Packaging:</b>	N/A
<b>Non-Bulk Packaging:</b>	N/A	<b>Air Cargo Limit:</b>	N/A
<b>Passenger Air/Rail Limit:</b>	N/A	<b>Other Stowage:</b>	N/A
<b>Vessel Stowage:</b>	N/A		
<b>Reportable Quantity:</b>	N/A		

### AIR - ICAO OR IATA

<b>Proper Shipping Name:</b>	Not regulated	<b>ID Number:</b>	N/A
<b>Hazard Class:</b>	N/A	<b>Packing Group:</b>	N/A
<b>Subsidiary Risk:</b>	N/A	<b>Packing Instructions:</b>	N/A
<b>Hazard Labels:</b>	N/A	<b>Packing Instruction -</b>	
<b>Air Passenger Limit Per Package:</b>	N/A	<b>Cargo:</b>	N/A
<b>Air Cargo Limit Per Package:</b>	N/A	<b>Special Provisions Code:</b>	N/A

### WATER - IMDG

<b>Proper Shipping Name:</b>	Not regulated	<b>ID Number:</b>	N/A
<b>Hazard Class:</b>	N/A	<b>Subsidiary Risk:</b>	N/A
<b>Packing Group:</b>	N/A		
<b>Medical First Aid Guide Code:</b>	N/A		

## Additional Information

No information available

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## SECTION XV - REGULATORY INFORMATION

### U.S. Federal Regulations:

The components of this product are either on the TSCA Inventory or exempt (i.e. impurities, a polymer complying with the exemption rule at 40 CFR 723.250) from the Inventory.

### State Regulations:

No information available

### International Regulations:

This material (or each component) is listed on the following inventories:

Canada - DSL

EU - EINECS

Australia - AICS

Japan - ENCS

Korea - ECL

Philippines - PICCS

China - List I

Canadian WHMIS Hazard Class and Division = Not controlled

### SARA Hazards:

<b>Acute:</b>	No	<b>Chronic:</b>	Yes
<b>Reactive:</b>	No	<b>Fire:</b>	No
<b>Pressure:</b>	No		

### Additional Information

The above regulatory information represents only selected regulations and is not meant to be a complete list.

## SECTION XVI - OTHER INFORMATION

### NFPA Codes:

<b>Health:</b>	NR	<b>Flammability:</b>	NR
<b>Reactivity:</b>	NR	<b>Other:</b>	NR

### HMIS Codes:

<b>Health:</b>	1*	<b>Flammability:</b>	1
<b>Reactivity:</b>	0	<b>Protection:</b>	X

### Label Statements:

### Other Information:

Not available

Abbreviations:

(L) = Loose bulk density in g/ml

LOEC = Lowest observed effect concentration

MATC = Maximum acceptable toxicant concentration

NA = Not available

N/A = Not applicable

NL = Not limited

NOAEL = No observable adverse effect level

NOEC = No observed effect concentration

NOEL = No observable effect level

NR = Not rated

(P) = Packed bulk density in g/ml

PNOR = Particulates Not Otherwise Regulated

PNOS = Particulates Not Otherwise Specified

REL = Recommended exposure limit

TS = Trade secret

### Additional Information

Information on this form is furnished solely for the purpose of compliance with OSHA's Hazard Communication Standard, 29CFR 1910.1200 and the Canadian Hazardous Products Act and associated Controlled Products Regulations and shall not be used for any other purpose.