



# Material Safety Data Sheet

## COBRA® Herbicide

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products is regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling. All necessary and appropriate precautionary, use, and storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** COBRA® Herbicide  
**VC NUMBER(S):** 1199 & 1632  
**ITEM:** 86640  
**SYNONYM(S):** None  
**EPA REGISTRATION NUMBER:** 59639-34

**MANUFACTURER**  
VALENT USA CORPORATION  
P.O. Box 8025  
1600 Riviera Avenue, Suite 200  
Walnut Creek, CA 94596-8025

**EMERGENCY TELEPHONE NUMBERS**  
HEALTH EMERGENCY OR SPILL (24 hr):  
(800) 892-0099  
TRANSPORTATION (24 hr.): CHEMTREC  
(800) 424-9300 or (202) 483-7616

**PRODUCT INFORMATION**  
AGRICULTURAL PRODUCTS: (800) 682-5368  
PROFESSIONAL PRODUCTS: (800) 898-2536

The current MSDS is available through our website or by calling the product information numbers listed above. ([www.valent.com](http://www.valent.com))

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Weight/ Percent	ACGIH Exposure Limits	OSHA Exposure Limits
Lactofen (2-ethoxy-1-methyl-2-oxoethyl 5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitrobenzoate) * (77501-63-4)	23 - 25	None	None
Total hydrocarbons (64742-94-5)	55 - 60	100 mg/m <sup>3</sup> (17 ppm) TWA	Manufacturers recommended exposure limit
Naphthalene (91-20-3)	5 - 6	10 ppm TWA, 15 ppm STEL skin - potential for absorption	10 ppm TWA, 15 ppm STEL 50 mg/m <sup>3</sup> TWA, 75 mg/m <sup>3</sup> STEL
Others ** (No CAS#)	14 - 21	None	None

**Emergency Telephone:** (800) 892-0099  
**REVISION NUMBER:** 2

**MSDS NO.:** 0166  
**REVISION DATE:** 01/08/2007

\* Active Ingredient

\*\* Other ingredients, which are maintained as trade secrets, are any substances other than an active ingredient contained in this product. Some of these may be hazardous, but their identity is withheld because they are considered trade secrets. The hazards associated with the other ingredients are addressed in this document. Specific information on other ingredients for the management of exposures, spills, or safety assessments can be obtained by a treating physician or nurse by calling **1-800-892-0099** at any time.

### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

**DANGER**

- Corrosive.
- Causes irreversible eye damage.
- Harmful if swallowed, inhaled or absorbed through skin.
- Combustible.
- Aspiration hazard, do not induce vomiting.
- May cause allergic reaction.
- Avoid breathing vapors or spray mist.
- Avoid contact with eyes, skin and clothing.
- Keep out of reach of children.

#### POTENTIAL HEALTH EFFECTS

##### Acute Toxicity (Primary Routes of Exposure)

**Signs and Symptoms of Systemic Effects:** The toxicity of this product has not been fully assessed. The information provided is based on studies done with a product formulated with the 72-78% technical grade material.

Signs of toxicity in test animals exposed to lethal or near-lethal oral doses of Lactofen Technical included lethargy, ataxia, irregular breathing, lacrimation and loose stools. This product contains a solvent mixture. Solvents, when inhaled, can cause nasal and respiratory irritation and central nervous system effects including dizziness, weakness, fatigue, nausea, headache and possibly unconsciousness and even death. Ingestion of solvents can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration of low viscosity solvents can cause chemical pneumonitis which can be fatal. Acute exposure to naphthalene by inhalation, ingestion, and dermal contact has been associated with hemolytic anemia, damage to the kidneys, cataracts, and, in infants, brain damage.

**Acute Eye Contact:** This product is corrosive to eyes. The expected adverse health effects resulting from an exposure may include redness, swelling and pain which could last for an extended period of time or possibly irreversible eye damage and blindness.

**Acute Skin Contact:** This product is corrosive to skin. The expected adverse health effects resulting from an exposure may include redness, swelling and pain for an extended period of time and irreversible tissue damage. This product is slightly toxic when absorbed through the skin. This product is not expected to cause allergic skin reactions.

**Acute Ingestion:** This product is slightly toxic when ingested. Ingestion of this product may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Because of the low viscosity of this substance, it can directly enter the lungs if it is swallowed (this is called aspiration). This can occur during the act of swallowing or when vomiting the substance. Once in the lungs, the substance is very difficult to remove and can cause injury to the lungs and death.

**Acute Inhalation:** This product is minimally toxic when inhaled. Exposure to high concentrations in the air may result in respiratory irritation. Signs and symptoms may include, but not be limited to, nasal discharge, sore throat, coughing and difficulty in breathing.

**Chronic Toxicity (including cancer):** Studies with Lactofen Technical indicate that repeated high exposures produced changes primarily in the liver and blood cells. Other organs were affected but only at very high dose levels. No toxic effects were observed in a study with nonhuman primates. Lactofen Technical produced liver tumors in high dose rodent studies, but is unlikely to be carcinogenic to humans.

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Symptoms include fatigue, concentration difficulties, anxiety, depression, rapid mood swings and short-term memory loss. The reports are not clear with regard to the types of solvents that may cause these symptoms, and there is controversy among scientists as to whether the condition exists or is caused by this type of product. Since many other diseases cause some or all of these conditions, a doctor should be consulted if any appear.

Chronic exposure of workers and rodents to naphthalene has been reported to cause cataracts and damage to the retina. Lesions in the kidneys and thymus, signs of anemia, and reduced spleen weights have been observed in rats and mice chronically exposed via gavage. Naphthalene has been listed by the International Agency for Research on Cancer (IARC) as possibly carcinogenic to humans (Group 2B). This product contains naphthalene which has been listed by the International Agency for Research on Cancer (IARC) as possibly carcinogenic to humans (Group 2B).

**Developmental Toxicity (birth defects):** In studies with Lactofen Technical birth defects were produced in animals only at doses that were also toxic to the pregnant female. There is limited evidence of fetal and maternal toxicity from exposure to naphthalene.

**Reproductive Toxicity:** Studies with Lactofen Technical showed reproductive effects in animals only at doses that produced other types of general toxicity.

**Potentially Aggravated Medical Conditions:** Individuals with preexisting diseases of the liver or central nervous system may have increased susceptibility to the toxicity of excessive exposures.

For complete discussion of the toxicology data from which this evaluation was made, refer to Section 11. For Regulatory Information, refer to Section 15.

## 4. FIRST AID MEASURES

### EMERGENCY NUMBER (800) 892-0099

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact **1-800-892-0099** for emergency medical treatment information.

### EYE CONTACT:

Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

### SKIN CONTACT:

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

### INGESTION:

Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

### INHALATION:

Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

### NOTES TO PHYSICIAN:

Ingestion of this product or subsequent vomiting can result in aspiration of light hydrocarbon liquid, which can cause pneumonitis. If ingested, probable mucosal damage may contraindicate the use of gastric lavage.

## 5. FIRE FIGHTING MEASURES

<b>FLASH POINT:</b>	142-144°F
<b>FLASH POINT METHOD:</b>	SetaFlash Closed Cup
<b>AUTOIGNITION:</b>	No data available
<b>EXTINGUISHING MEDIA:</b>	Water fog, carbon dioxide, foam, dry chemical
<b>FLAMMABLE LIMITS IN AIR - LOWER (%):</b>	Not applicable
<b>FLAMMABLE LIMITS IN AIR - UPPER (%):</b>	Not applicable
<b>NFPA RATING:</b>	
Health:	3
Flammability:	2
Reactivity:	0
Special:	None

(Least-0, Slight-1, Moderate-2, High-3, Extreme-4). These values are obtained using professional judgement. Values were not available in the guidelines or published evaluations prepared by the National Fire Protection Association, NFPA.

**FIRE FIGHTING INSTRUCTIONS:** Liquid evaporates and forms vapor (fumes) which can catch fire and burn with explosive violence. Invisible vapor spreads easily and can be set on fire by many sources such as pilot lights, welding equipment, and electrical motors and switches. Fire hazard is greater as liquid temperature rises above 85 degrees F.

Products of combustion from fires involving this material may be toxic. Avoid breathing smoke and mists. Avoid personnel and equipment contact with fallout and runoff. Minimize the amount of water used for fire fighting. Do not enter any enclosed area without full protective equipment, including self-contained breathing equipment. Contain and isolate runoff and debris for proper disposal. Decontaminate personal protective equipment and fire fighting equipment before reuse. Read the entire document.

**HAZARDOUS COMBUSTION PRODUCTS:** Normal combustion forms carbon dioxide, water vapor and may produce: Oxides of nitrogen. Combustion may produce toxic gases of: compounds of chlorine and fluorine. Incomplete combustion can produce carbon monoxide.

## 6. ACCIDENTAL RELEASE MEASURES

**VALENT EMERGENCY PHONE NUMBER: (800) 892-0099**  
**CHEMTREC EMERGENCY PHONE NUMBER: (800) 424-9300**  
**OBSERVE PRECAUTIONS IN SECTION 8: PERSONAL PROTECTION**

Stop the source of the spill if safe to do so. Contain the spill to prevent further contamination of the soil, surface water, or ground water. For additional spill response information refer to the North American Emergency Response Guidebook.

### FOR SPILLS ON LAND:

**CONTAINMENT:** Avoid runoff into storm sewers and ditches which lead to waterways. Contain spilled liquids with dry sorbents.

**CLEANUP:** Clean up spill immediately. Absorb spill with inert material (such as dry sand or earth), then place in a chemical waste container. Wash area with soap and water. Pick up wash liquid with additional absorbent and place in a chemical waste container.

### FOR SPILLS IN WATER:

**CONTAINMENT:** This material forms an emulsion in water. Stop or reduce contamination of any water. Isolate contaminated water.

**CLEANUP:** Remove contaminated water for treatment or disposal.

## 7. HANDLING AND STORAGE

### END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

DO NOT USE OR STORE near flame, sparks or hot surfaces. Use only in well ventilated area. Keep container closed.

DO NOT weld, heat or drill container. Replace cap or bung. Emptied container still contains hazardous or explosive vapor or liquid.

Keep pesticide in original container. Do not store or transport near food or feed. Do not contaminate food or feed. Do not put concentrate into food or drink containers. Do not dilute concentrate in food or drink containers. Store in a cool, dry place, out of direct sunlight.

Do not store at temperatures below 32°F. If the product is exposed to temperatures below 32°F, thaw at room temperature to 50°F or warmer and shake gently to unify the product.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

**EYES:** Appropriate eye protection must be worn when working with this material or serious harm can result. Wear protective eyewear.

**RESPIRATORY PROTECTION:** This material may be a respiratory irritant and, unless ventilation is adequate, the use of approved respiratory protection is recommended. Use this material only in well ventilated areas.

**SKIN PROTECTION:** Causes skin burns. When handling this material, wear impervious protective clothing, which should include chemical resistant gloves, apron, overshoes and complete facial protection.

**EXPOSURE LIMITS - See Section 2.**

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>PHYSICAL STATE:</b>	Liquid
<b>COLOR:</b>	Amber
<b>ODOR:</b>	Aromatic
<b>MELTING POINT:</b>	Not applicable
<b>BOILING POINT:</b>	No data available
<b>DENSITY:</b>	8.31 lb/gal @ 20° C
<b>VAPOR PRESSURE:</b>	No data available
<b>pH:</b>	5.9 (1% emulsion)
<b>VISCOSITY:</b>	No data available
<b>CORROSION CHARACTERISTICS:</b>	No data available
<b>SOLUBILITY:</b>	Emulsifiable in water

## 10. STABILITY AND REACTIVITY

<b>CHEMICAL STABILITY:</b>	Stable at normal ambient temperatures. Do not store at temperatures below 32° F.
<b>INCOMPATIBILITY:</b>	May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
<b>OXIDATION/REDUCTION PROPERTIES:</b>	No data available
<b>EXPLODABILITY:</b>	Not expected to be explosive.

**11. TOXICOLOGICAL INFORMATION****ACUTE** (Product Specific Information):

There is no toxicology information available for this product. The information provided is based on studies done with a product formulated with the 72-78% technical grade material.

- Eye Irritation:** This product produced prolonged or significant eye irritation or irreversible eye damage in tests animals. (Toxicity Category I)
- Skin Irritation:** This product was corrosive to skin in tests with animals. (Toxicity Category I)
- Oral Toxicity:** The oral LD<sub>50</sub> in rats is 2600 mg/kg for males and 2400 mg/kg for females. (Toxicity Category III)
- Dermal Toxicity:** The dermal LD<sub>50</sub> in rabbits is > 2000 mg/kg. (Toxicity Category III)
- Inhalation Toxicity:** The 4-hour inhalation LC<sub>50</sub> in rats is 6.65 mg/L. (Toxicity Category IV) Exposure to high concentrations in the air may result in respiratory irritation.
- Skin Sensitization:** This product did not produce skin sensitization in a Buehler Skin Sensitization Test.

**TOXICITY OF LACTOFEN TECHNICAL**

**SUBCHRONIC:** Histopathological changes in the liver, significant changes in clinical chemistry associated with the liver and hematological changes were observed in rats exposed to 1000 ppm of Lactofen Technical for 90 days. The NOEL in this study was 200 ppm. In a 90-day study in mice, the LOEL for Lactofen Technical was 200 ppm based on hematology and clinical chemistry changes, various organ weight effects and histopathological changes of the liver, kidney, thymus, spleen, ovaries and testes.

**CHRONIC/CARCINOGENICITY:** In an 18-month oncogenicity study in mice a statistically significant increase in liver adenomas and carcinomas was observed at 250 ppm in both sexes. The lowest dose, 10 ppm, was the LOEL with increased liver weight and hepatocytomegally. In a 2-year rat chronic feeding/oncogenicity study liver neoplastic nodules and foci of cellular alteration were observed in both sexes at 2000 ppm. The NOEL for systemic toxicity was 500 ppm based on kidney and liver pigmentation. Research studies indicate that Lactofen Technical is a peroxisome proliferating agent that induces liver tumors through a non-genotoxic mechanism and is unlikely to be carcinogenic to humans at low doses. In a 1-year feeding study of Lactofen Technical with dogs, the NOEL is 200 ppm and the LOEL is 1000/3000 ppm based on renal dysfunction, hematology and clinical chemistry changes.

**DEVELOPMENTAL TOXICITY:** Pregnant rats were administered oral doses of 15, 50 and 150 mg/kg/day Lactofen Technical on days 6-19 of gestation. Maternal and developmental toxicity were observed at 150 mg/kg/day. The NOEL for this study was 50 mg/kg/day. Two developmental toxicity studies on Lactofen Technical were conducted in rabbits. In the first study, pregnant rabbits were administered oral doses of 5, 15 or 50 mg/kg/day of Lactofen Technical on days 6-18 of gestation. Maternal toxicity and developmental effects were observed at 15 and 50 mg/kg/day. In the second study, pregnant rabbits were exposed to 1, 4 or 20 mg/kg/day oral doses on days 6-18 of gestation. Maternal toxicity was observed at 20 mg/kg/day, while no developmental effects were observed at this dose.

**REPRODUCTION:** Groups of male and female rats were administered 50, 500 or 2000 ppm of Lactofen Technical continuously for two generations. Adult systemic toxicity and reproductive toxicity were observed at levels of 500 ppm and greater. The NOEL for both systemic and reproductive toxicity was 50 ppm.

**MUTAGENICITY:** The following mutagenicity studies with Lactofen Technical were negative: unscheduled DNA synthesis, chromosomal aberration, DNA repair assay and one Ames assay. A second Ames assay was positive. Lactofen Technical is not considered a genetic hazard.

**TOXICITY OF OTHER INGREDIENTS:**

This product contains a solvent. Solvents, when inhaled, can cause nasal and respiratory irritation and central nervous system effects including dizziness, weakness, fatigue, nausea, headache and possibly unconsciousness and even death. Ingestion of solvents can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Prolonged or repeated dermal exposures may cause drying, scaling and even blistering of the skin. Aspiration of low viscosity products can cause chemical pneumonitis which can be fatal. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Symptoms include fatigue, concentration difficulties, anxiety, depression, rapid mood swings and short-term memory loss. The reports are not clear with regard to the types of solvents that may cause these symptoms, and there is controversy among scientists to whether the condition exists or is caused by this type of product. Since many other diseases cause some or all of these conditions, a doctor should be consulted if any appear. Acute exposure to naphthalene by inhalation, ingestion, and dermal contact has been associated with hemolytic anemia, damage to the kidneys, cataracts, and, in infants, brain damage. There is limited evidence of fetal and maternal toxicity from exposure to naphthalene.

Chronic (long-term) exposure of workers and rodents to naphthalene has been reported to cause cataracts and damage to the retina. Lesions in the kidneys and thymus, signs of anemia, and reduced spleen weights have been observed in rats and mice chronically exposed via gavage. A National Toxicology Program (NTP) report states that lifetime inhalation exposure to naphthalene resulted in increases in tumors of the nose in rats. In another NTP study, lifetime inhalation exposure to naphthalene increased lung tumors in female mice. The relevance of the rodent findings to humans is unknown. Naphthalene has been listed by the International Agency for Research on Cancer (IARC) as possibly carcinogenic to humans (Group 2B).

For a summary of the potential for adverse health effects from exposure to this product, refer to Section 3. For information regarding regulations pertaining to this product, refer to Section 15.

**12. ECOLOGICAL INFORMATION**

**AVIAN TOXICITY:** The following results were obtained from studies with Lactofen Technical:  
LD<sub>50</sub> quail: greater than 2510 mg/kg;  
LC<sub>50</sub> duck: greater than 5620 ppm;  
LC<sub>50</sub> quail: greater than 5620 ppm.

**AQUATIC ORGANISM TOXICITY:** The following effects were noted in studies with Lactofen Technical:  
96-hour LC<sub>50</sub> bluegill sunfish: greater than 100 ppb;  
96-hour LC<sub>50</sub> rainbow trout: greater than 100 ppb;  
48-hour LC<sub>50</sub> Daphnia magna: 2.0 ppm;  
Fish early life stage toxicity (sheepshead minnow):  
MATC (Maximum Allowable Toxicant Concentration) greater than 0.78 ppm but less than 1.6 ppm. The maximum solubility of Lactofen Technical is 100 ppb.

**OTHER NON-TARGET ORGANISM TOXICITY:** Lactofen Technical is practically nontoxic to bees with an acute topical LD50 of greater than 160 µg/bee.

**13. DISPOSAL CONSIDERATIONS**

**END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.**

**DISPOSAL METHODS:** Check government regulations and local authorities for approved disposal of this material. Dispose in accordance with applicable laws and regulations.

**14. TRANSPORT INFORMATION**

**DOT (ground) SHIPPING NAME:** Compounds, weed killing, liquid, non-regulated  
**DOT TECHNICAL SHIPPING NAME:** Lactofen 24% Solution

**Emergency Telephone:** (800) 892-0099  
**REVISION NUMBER:** 2

**MSDS NO.:** 0166  
**REVISION DATE:** 01/08/2007

**14. TRANSPORT INFORMATION**

**DOT REPORTABLE QUANTITY (RQ):** 200 gallons (Naphthalene RQ=100 lb)  
**UN/NA NUMBER:** Not applicable  
**HAZARD CLASS:** Not applicable  
**REMARKS:** Regulated when shipped in bulk (greater than RQ).  
**EXEMPTION REQUIREMENT:** 49 CFR 173.150

**15. REGULATORY INFORMATION**

**REGULATIONS UNDER FIFRA:** All pesticides are governed under FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act). Therefore, the regulations presented below are pertinent only when handled outside of the normal use and applications of pesticides. This includes waste streams resulting from manufacturing/formulation facilities, spills or misuse of products, and storage of large quantities of products containing hazardous or extremely hazardous substances.

**OTHER U.S. FEDERAL REGULATIONS:**

Chemical Name	RCRA - U Series Wastes	Clean Water Act - Hazardous Substances	Clean Water Act Section 307
Lactofen (2-ethoxy-1-methyl-2-oxoethyl 5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitrobenzoate) * (77501-63-4)	None	Not listed	Not listed
Total hydrocarbons (64742-94-5)	None	Not listed	Not listed
Naphthalene (91-20-3)	Listed	Listed	Listed

**CWA Section 311:** A component of this product is classified as an oil under Section 311 of the Clean Water Act (40 CFR 110) and the Oil Pollution Act of 1990. Discharge or spills that produce a visible sheen on either surface or in waterways/sewers that lead to surface water must be reported to the National Response Center at 800-424-8802.

Chemical Name	SARA 313 Chemicals	SARA Section 302	CERCLA Reportable Quantity (RQ):
Lactofen (2-ethoxy-1-methyl-2-oxoethyl 5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitrobenzoate) * (77501-63-4)	1.0% de minimis concentration	Not listed	None
Total hydrocarbons (64742-94-5)	Not listed	Not listed	None
Naphthalene (91-20-3)	0.1% de minimis concentration	Not listed	100 lb (45.4 kg)

**Product Reportable Quantity (RQ):** 200 gallons (naphthalene RQ = 100 lb)

**SARA (311, 312):**

Immediate Health: Yes  
 Chronic Health: Yes  
 Fire: Yes  
 Sudden Pressure: No  
 Reactivity: No

Chemical Name	IARC - Group 1 (carcinogenic to humans)	IARC - Group 2A (Probably carcinogenic)	IARC - Group 2B (Possibly carcinogenic)	NTP Carcinogen List
Lactofen (2-ethoxy-1-methyl-2-oxoethyl 5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitrobenzoate) * (77501-63-4)	No	No	No	Not listed
Total hydrocarbons (64742-94-5)	No	No	No	Not listed
Naphthalene (91-20-3)	No	No	X	Suspect Carcinogen

**STATE REGULATIONS:**

Each state may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list of all state regulations. Therefore, the user should consult state or local authorities. The state regulations reviewed include: California Proposition 65, California Directors List of Hazardous Substances, Massachusetts Right to Know, Michigan Critical Materials List, New Jersey Right to Know, Pennsylvania Right to Know, Rhode Island Right to Know and the Minnesota Hazardous Substance list. For Washington State Right to Know, see Section 2 for Exposure Limit information. For Louisiana Right to Know refer to SARA information listed under U.S. Regulations above.

Chemical Name	California Proposition 65	California - Directors List of Hazardous Substances
Lactofen (2-ethoxy-1-methyl-2-oxoethyl 5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitrobenzoate) * (77501-63-4)	carcinogen, initial date 1/1/89	Not listed
Total hydrocarbons (64742-94-5)	Not listed	Not listed
Naphthalene (91-20-3)	carcinogen, initial date 4/19/02	Listed

Chemical Name	MI - Critical Materials List	MA Right To Know	NJ Right To Know
Lactofen (2-ethoxy-1-methyl-2-oxoethyl 5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitrobenzoate) * (77501-63-4)	Not listed	Not listed	Listed
Total hydrocarbons (64742-94-5)	Not listed	Not listed	Not listed
Naphthalene (91-20-3)	Not listed	Listed	Listed

Chemical Name	PA Right To Know	RI Right To Know	MN Hazardous Substance
Lactofen (2-ethoxy-1-methyl-2-oxoethyl 5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitrobenzoate) * (77501-63-4)	Not listed	Not listed	Not listed
Total hydrocarbons (64742-94-5)	Not listed	Not listed	Not listed
Naphthalene (91-20-3)	Listed	Listed	Listed

**California Proposition 65:** WARNING: This product contains chemicals known to the State of California to cause cancer.

**CANADIAN REGULATIONS:**

**WHMIS Hazard Class:** Not determined

For information regarding potential adverse health effects from exposure to this product, refer to Sections 3 and 11.

**16. OTHER INFORMATION**

**REASON FOR ISSUE:** Change the Manufacturer's address, input MSDS into the new system, add a storage statement and minor edits throughout. Slight formulation change, edits throughout.  
**MSDS NO.:** 0166  
**REVISION NUMBER:** 2  
**REVISION DATE:** 01/08/2007  
**SUPERCEDES DATE:** 7/30/1999

THE INFORMATION IN THIS MSDS IS BASED ON DATA AVAILABLE TO US AS OF THE REVISION DATE GIVEN HEREIN, AND BELIEVED TO BE CORRECT. CONTACT VALENT USA CORPORATON TO CONFIRM IF YOU HAVE THE MOST CURRENT MSDS.

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