

Product Code:      MSDS459  
 Product Name:     OPTIMUM SHIELD

24-hour Emergency Phone:                     (800) 535-5053

HMIS CODES H F R P  
               2 1 0 X

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

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**DISTRIBUTED BY:**

16001 TRADE ZONE AVE.  
 UPPER MARLBORO, MD 20774

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

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Component/Exposure Limits	CAS#	% by Wt.
* 2-Butoxyethanol ACGIH TWA 20 ppm; OSHA TWA 50 ppm; 240 MG/CUBIC M	111-76-2	Range Not Found 10

**3. HAZARDS IDENTIFICATION**

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WARNING. Irritating to the skin, eyes, and digestive system. Long-term exposure may cause kidney and/or liver damage. Ethylene glycol monobutyl ether (also known as 2-butoxyethanol) is a possible teratogen. Causes skin irritation. Causes eye irritation. May be harmful if inhaled. Harmful if swallowed. May cause damage to organs through prolonged or repeated contact.



**Potential Health Effects**

**EYE:**

Eye irritant.

**SKIN:**

Causes skin irritation.

**INGESTION:**

May cause nausea, vomiting and stomach irritation. May be harmful if swallowed and enters airways.

**INHALATION:**

Inhalation of vapors and mist of the product may be irritating to the respiratory system. Excessive inhalation of this material causes headache, dizziness, nausea and loss of motor skills.

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**CHRONIC (CANCER) INFORMATION:**

Long term exposure via inhalation of concentrations of 2-butoxyethanol up to 125 ppm caused an increase of liver tumors in male mice. A slight increase in adrenal tumors was observed in female rats. The NTP has determined that 2-butoxyethanol displays some evidence of carcinogenicity in female rats. The IARC has evaluated the material as an IARC Group 3 not classified as to carcinogenicity in humans, based on limited data in animals and inadequate data in humans.

**TERATOLOGY (BIRTH DEFECT) INFORMATION:**

Not classified as a teratogen.

**REPRODUCTION INFORMATION:**

NO INFORMATION AVAILABLE.

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**4. FIRST AID MEASURES**

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**EYES:**

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(s). Call a poison control center or doctor for treatment advice.

**SKIN:**

Wash with soap and water.

**INGESTION:**

If swallowed, Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. DO NOT INDUCE vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**INHALATION:**

Not likely to be a problem. If difficulty breathing remove to fresh air. If symptoms continue, seek medical advice.

**NOTE TO PHYSICIANS:**

NO INFORMATION AVAILABLE.

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**5. FIRE FIGHTING MEASURES**

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**FLAMMABLE PROPERTIES:****FLASH POINT: N/A****Method: N/A**

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**FLAMMABLE LIMITS:**

Lower flammable limit: N/A

Upper flammable limit: N/A

**AUTOIGNITION TEMPERATURE:**

NO INFORMATION AVAILABLE.

**HAZARDOUS COMBUSTION PRODUCTS:**

NO INFORMATION AVAILABLE.

**EXTINGUISHING MEDIA:**

Use extinguishing method appropriate for the surrounding fire, Dry Chemical, Carbon Dioxide, Foam or Water.

**FIREFIGHTING INSTRUCTIONS:**

Wear full protective clothing, including self-contained positive pressure or pressure demand breathing apparatus, helmet, and protective clothing. Use water spray to cool fire-exposed containers and to protect personnel.

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**6. ACCIDENTAL RELEASE MEASURES**

**SMALL SPILL:**

Use appropriate containment to avoid run-off. Keep out of streams, sewers and waterways. Collect free material. Absorb remainder on inert absorbant. Wash area with plenty of water.

**LARGE SPILL:**

If possible, clean up spill area with absorbent material or mop and then flush with plenty of water. Absorb liquid with vermiculite, floor absorbent or other absorbent material.

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**7. HANDLING AND STORAGE**

**HANDLING:**

Avoid contact with skin and eyes. Wash hands thoroughly after handling.

**STORAGE:**

Keep containers covered. Avoid eye and prolonged skin contact. Take the usual chemicals handling precautions. Handle and use in a manner consistent with good industrial techniques and practices.

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**ENGINEERING CONTROLS:**

When used as directed, no engineering controls are necessary. If used in a confined space and excess material is used, a source of ventilation may be required.

**RESPIRATORY PROTECTION:**

None Normally Needed. If irritation is experienced, a NIOSH-approved respirator should be worn. Ventilation and other forms of engineering controls are often the preferred means for controlling chemical exposure. Respiratory protection may be needed for non-routine or emergency situations.

**SKIN PROTECTION:**

Wear impervious gloves, safety apron, and clothing if there is a chance of skin contact with product.

**EYE PROTECTION:**

Chemical splash goggles with side shields recommended.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

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**BOILING POINT:** N/A  
**MELTING POINT:** NO INFORMATION AVAILABLE.  
**VAPOR PRESSURE:** NO INFORMATION AVAILABLE.  
**VAPOR DENSITY:** NO INFORMATION AVAILABLE.  
**SOLUBILITY IN WATER:** Emulsifies  
**SPECIFIC GRAVITY:** 1.023  
**pH:** 10.5-11.5  
**ODOR:** Mild acrylic.  
**APPEARANCE:** Opaque milky white liquid.

**10. STABILITY AND REACTIVITY**

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**CHEMICAL STABILITY (CONDITIONS TO AVOID):**

Stable.

**INCOMPATIBILITY:**

None known.

**HAZARDOUS DECOMPOSITION PRODUCTS:**

Oxides of carbon, may be emitted if product burns.

**HAZARDOUS POLYMERIZATION:**

Will not occur.

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**11. TOXICOLOGICAL INFORMATION**

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**EYE:**

Direct contact may cause irritation.

**SKIN:**

Direct contact may cause irritation.

**INGESTION:**

Swallowing material may cause irritation of the digestive tract, diarrhea, and abdominal pain.

**INHALATION:**

NO INFORMATION AVAILABLE.

**SUBCHRONIC:**

All components of this product are listed on the U. S. TOXIC SUBSTANCE CONTROL ACT (TSCA) Inventory or exemption has been granted in accordance with 40 CFR 723.50.

**CHRONIC/CARCINOGENICITY:**

Long term exposure via inhalation of concentrations of 2-butoxyethanol up to 125 ppm caused an increase of liver tumors in male mice. A slight increase in adrenal tumors was observed in female rats. The NTP has determined that 2-butoxyethanol displays some evidence of carcinogenicity in female rats. The IARC has evaluated the material as an IARC Group 3 not classified as to carcinogenicity in humans, based on limited data in animals and inadequate data in humans.

**TERATOLOGY:**

Ethylene glycol, CAS # 107-21-1, is a reproductive and developmental toxicant when administered at high doses in experimental animals.

**REPRODUCTION:**

Not expected to effect human reproduction.

**MUTAGENICITY:**

Not mutagenic.

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**12. ECOLOGICAL INFORMATION**

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**ECOTOXICOLOGICAL INFORMATION:**

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EC50 Daphnia: 282 mg/l 48 hours estimated  
LC50 Fish: 468 mg.l 96 hours estimated

Ethylene glycol monobutyl ether  
LC50 Inland silverside (Menidia berylina): 1250 mg/l 96 hrs.

**CHEMICAL FATE INFORMATION:**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**13. DISPOSAL CONSIDERATIONS**

Dispose of according to current and applicable Local, State and Federal Laws and Regulations.

**14. TRANSPORT INFORMATION (Not meant to be all inclusive)**

Not regulated.

**15. REGULATORY INFORMATION: (Not meant to be all inclusive - selected regulations represent**

**U.S. FEDERAL REGULATIONS:**

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) 29 CFR 1910.1200

**OSHA:**

HAZCOM STANDARD

**CERCLA: SARA HAZARD CATEGORY:**

Immediate Hazard  
Delayed Hazard

**SECTION 313:**

Glycol Ethers (2.5-10%)

**INTERNATIONAL REGULATIONS:**

**CANADIAN WHMIS:**

NO INFORMATION AVAILABLE.

**CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA):**

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NO INFORMATION AVAILABLE.

**EINECS:**

NO INFORMATION AVAILABLE.

**STATE REGULATIONS:**

NO INFORMATION AVAILABLE.

**VOLATILE ORGANIC COMPOUNDS:**

95.58 gm/l

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**16. OTHER INFORMATION**

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**SDS Status:**

Compliant with OSHA's new GHS safety data sheet (SDS).

**Information in this Safety Data Sheet (SDS) is based on sources other than direct test data and is given in good faith. No warranty is expressed or implied. We believe that the information is current as of the date of this SDS. The use of this information, the conditions, the methods of handling, storage, use and disposal of the product are not within the control of DAYCON PRODUCTS COMPANY, INC., therefore it is the user's responsibility and obligation to determine the conditions of the safe use of this product and to ensure that its activities comply with all laws and regulations.**