

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product identifier****Product Name:** ERADICATOR**Other means of identification****Common Name:** VTP-2007**UN/ID No** NA1993 (Domestic)**Synonyms** None**Product Categories** Cleaner, Solvent Based**Recommended use of the chemical and restrictions on use****Sale and Use Restrictions** Not applicable**Recommended Use** Restricted to professional users.**Uses advised against** Consumer use**Details of the supplier of the safety data sheet****Supplier Address**

Valor

61400 American Lane, Suite 130

Bend, Oregon 97702-9409

Emergency telephone number**Company Phone Number**

Valor: (541) 815-9145

Emergency Telephone

CHEMTREC 1-800-424-9300


2. HAZARDS IDENTIFICATION

Classification

Acute toxicity - Inhalation (Vapors)	Category 3
Germ cell mutagenicity	Sub-category 1B
Aspiration toxicity	Category 1
Flammable liquids	Category 4

Label elements

Emergency Overview

<p>Danger</p> <p>Hazard statements Toxic if inhaled May cause genetic defects May be fatal if swallowed and enters airways Combustible liquid</p> <div style="text-align: center; margin: 10px 0;">  </div> <p>Appearance Mobile Physical state Liquid Odor Ether</p>		
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Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking
 Keep cool

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention
 Specific treatment (see response statements below and Section 4 of the Safety Data Sheet)

IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CONTROL CENTER or doctor/physician
 IF SWALLOWED: Immediately call a POISON CONTROL CENTER or doctor/physician
 Do not induce vomiting
 In case of fire: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed
 Store in a dry place

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other information

- May be harmful if swallowed

- May be harmful in contact with skin
- Causes mild skin irritation
- Toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight %	Trade Secret
Hydrotreated Light Petroleum Distillates	64742-47-8	70-85	*
2-Ethylhexyl Nitrate	27247-96-7	5-15	*
2-Butoxyethanol	111-76-2	5-15	*
Glycol Ether PM Acetate	108-65-6	1-5	*
Light Aromatic Solvent Naphtha	64742-95-6	0.25-0.60	*
1,2,4-Trimethylbenzene	95-63-6	0.25-0.60	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

General advice

If exposed or concerned: Get medical advice/attention.

Skin contact

Wash with plenty of soap and water. Rinse immediately with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. Thoroughly clean shoes before reuse. If a person feels unwell or symptoms of skin irritation appear, consult a physician.

Inhalation

IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. Call a physician or Poison Control Center.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Check for and remove any contact lenses. Continue to rinse for at least ten minutes. Seek immediate medical attention/advice.

Ingestion

Call a physician or Poison Control Center immediately. If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. If affected person is fully conscious, give one glass of water to drink. Risk of product entering the lungs on vomiting after ingestion. If vomiting occurs, the head should be kept low so vomit does not enter lungs. If unconscious, place in recovery position and seek medical attention immediately.

Notes to Physician

Symptoms of poisoning may not appear for several hours. Keep under medical supervision for at least 48 hours. Aspiration hazard if swallowed - can enter lungs and cause damage.

Most important symptoms and effects, both acute and delayed

Symptoms

Headache, Dizziness, Nausea, Lowered blood pressure.

Indication of any immediate medical attention and special treatment needed

Self-protection of the first aider

Avoid breathing vapors or mists. Avoid contact with skin. No action shall be taken involving any personal risk or without suitable training. If it is suspected that vapors are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it and wear gloves.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Use water spray (fog), foam, dry chemical or CO₂, Alcohol-resistant foam.

Small Fire	Dry chemical or CO ₂ .
Large Fire	Water spray or fog; Alcohol resistant foam.
Explosive properties:	When heated above 100°C (212°F) may undergo a self accelerating, exothermic reaction which causes a rapid rise in temperature and pressure. Rupture of storage vessels and fire should be anticipated in case of such temperature. May form explosive peroxides.

Specific hazards arising from the chemical

COMBUSTIBLE MATERIAL: Most vapors are heavier than air. Vapors may spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapors may travel to source of ignition and flash back. Flash back possible over considerable distance. Runoff to sewer may create fire or explosion hazard.

Hazardous combustion products Carbon monoxide, Carbon dioxide (CO₂), Hydrocarbons, Nitrogen oxides (NO_x).

Specific methods:

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge May be ignited by heat, sparks or flames.

Special firefighting procedures:

No action shall be taken involving any personal risk without suitable training. Evacuate surrounding areas. Dike to collect large liquid spills. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Do not use water jet. Move containers from fire area if you can do it without risk. Water mist may be used to cool closed containers. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Water may cause frothing of heated materials. Spray storage vessels with water to maintain temperatures below 100°C (212°F).

Component
2-Butoxyethanol
111-76-2 (5-15)

ACGIH - test
200

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Keep people away from and upwind of spill/leak. Use personal protective equipment. See Section 8 for information on appropriate personal protective equipment.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions: Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system. Water runoff can cause environmental damage.

Methods and material for containment and cleaning up

Methods for Containment Dike far ahead of spill; use dry sand to contain the flow of material. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container.

Methods for clean-up: Clean-up methods - small spillage: Use only non-sparking tools. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to state, local, federal regulations. Clean-up methods - large spillage: Keep unnecessary personnel away. Dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. Avoid contact of spilled material with soil and prevent runoff entering surface waterways.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling: Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Protect from physical damage. Do not store at temperatures above 120°F (50°C). Keep containers tightly closed in a cool, well-ventilated place. Keep product and empty container away from heat and sources of ignition. Take precautionary measures against static discharge. Empty containers retain product residue and can be hazardous. Do not reuse empty containers. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose these containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death.

Conditions for safe storage, including any incompatibilities

Technical measures/precautions: Use only in area provided with appropriate exhaust ventilation. Eye wash and safety shower should be easily accessible.

Materials to avoid: Oxidizing agents, Strong reducing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA Exposure Limits:	NIOSH IDLH
Hydrotreated Light Petroleum Distillates 64742-47-8	TWA: 200 ppm	TWA: 500 ppm	-
2-Ethylhexyl Nitrate 27247-96-7	-	Not established	-
2-Butoxyethanol 111-76-2	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m ³ TWA: 25 ppm TWA: 120 mg/m ³	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m ³
Glycol Ether PM Acetate 108-65-6	-	Not established	-
Light Aromatic Solvent Naphtha 64742-95-6	-	TWA: 100 ppm	-
1,2,4-Trimethylbenzene 95-63-6	TWA: 25 ppm	Not established	TWA: 25 ppm TWA: 125 mg/m ³

Appropriate engineering controls

Engineering measures: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit values. Eye wash and safety shower should be easily accessible.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear normal work clothing, Chemical resistant gloves. Additional body garments should be used based on task being performed. Chemical resistant suit, and boots; Face-shield, Chemical resistant apron. (consult with the specific manufacturer to confirm performance).

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. When using do not eat, drink or smoke. Avoid contact with eyes, skin and clothing. Use personal protective equipment as required. Wash face, hands and any exposed skin thoroughly after handling. Take off contaminated clothing and wash it before reuse. Avoid breathing vapors or mists.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	Odor	Ether
Appearance	Mobile	Odor threshold	No information available
Color	Light Straw		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	N/A	Not applicable
Melting point/freezing point	No information available	
Boiling point / boiling range	> 100 °C / 212 °F	2- Ethyl Hexyl Nitrate decomposes on heating (based on components)
Flash point	>= 62 °C / 143 °F	
Evaporation rate	Slower than ether	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
Upper flammability limit	No Data Available	
Lower flammability limit	No Data Available	
Vapor pressure	No Data Available	
Vapor density	Heavier than air	
Specific Gravity	0.82	
Water solubility	Insoluble in water	
Solubility in other solvents	No Data Available	
Partition coefficient	No Data Available	
Autoignition temperature	No Data Available	
Decomposition temperature	No Data Available	
Kinematic viscosity	No information available	
Dynamic viscosity	No Data Available	
Explosive properties	No Data Available	
Oxidizing properties	No Data Available	

Other information

Softening point	No Data Available
Molecular weight	No Data Available
VOC Content (%)	
VOC Content (%)	19
	Contains VOC exempt solvents
Density	0.82 g/cc
Bulk density	No Data Available

10. STABILITY AND REACTIVITY

Reactivity

Reactivity Unstable at temperatures >100° C (212° F).

Chemical stability

Stability Decomposition starting from 100 °C.

Possibility of Hazardous Reactions May form explosive peroxides. May react with oxidizing agents.
Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid

Heat, flames and sparks. Do not allow evaporation to dryness. Do not expose to temperatures above 100 °C.

Incompatible materials

Materials to avoid: Oxidizing agents, Strong reducing agents.

Hazardous Decomposition Products

Hazardous Decomposition Products Carbon monoxide, Carbon dioxide (CO₂), Hydrocarbons, Nitrogen oxides (NO_x).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Toxic if inhaled. May cause genetic defects. May be fatal if swallowed and enters airways.
Inhalation	Toxic if inhaled.
Eye contact	Contact with eyes may cause irritation: redness, stinging and tearing.
Skin Contact	May be harmful in contact with skin. Overexposure to organic nitrates by inhalation of vapor or skin contact may cause headache, dizziness, nausea, and decreased blood pressure.
Ingestion	Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Hydrotreated Light Petroleum Distillates 64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
2-Ethylhexyl Nitrate 27247-96-7	> 9600 mg/kg (Rat)	> 4800 mg/kg (Rabbit)	> 14 mg/L (Rat) 4 h
2-Butoxyethanol 111-76-2	= 470 mg/kg (Rat)	= 435 mg/kg (Rabbit)	= 450 ppm (Rat) 4 h = 486 ppm (Rat) 4 h
Glycol Ether PM Acetate 108-65-6	= 8532 mg/kg (Rat)	> 5 g/kg (Rabbit)	-
Light Aromatic Solvent Naphtha 64742-95-6	-	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h, = 3400 ppm (Rat) 4 h
1,2,4-Trimethylbenzene 95-63-6	= 3280 mg/kg (Rat) = 8970 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	= 18 g/m ³ (Rat) 4 h

Information on toxicological effects

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available.
Mutagenic effects:	Is classified by the European Union as a mutagen of category 1B: Substances which should be regarded as being mutagenic to man.
Carcinogenicity	Category 3: Not Classifiable.

Chemical Name	ACGIH	IARC	NTP	OSHA
2-Ethylhexyl Nitrate 27247-96-7		Group 2A		
2-Butoxyethanol 111-76-2		Group 3		

Reproductive toxicity	Product contains a chemical or chemicals which are known or suspected reproductive hazards. Solvent Naphtha, light aromatic (CAS#64742-95-6): In the presence of slight maternal toxicity, fetotoxic effects have been observed in the offspring of rats exposed by inhalation. 2-Butoxyethanol (CAS#111-76-2): Experiments have shown reproductive toxicity effects on laboratory animals.
STOT - single exposure	Not classified.
STOT - repeated exposure	Not classified.
Chronic toxicity	Acute or chronic exposure to this material (or its components) may cause systemic toxicity, including adverse effects to the following: kidney, liver, spleen, adrenals, thymus, and central nervous system.
Target Organ Effects	Lungs, Skin, Eyes, Kidney, Liver, Spleen, Blood, Gastrointestinal tract (GI), Cardiovascular system, Upper respiratory tract, Central nervous system.
Neurological effects	Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
Other adverse effects	This product contains trimethylbenzene. Literature data indicate that long-term inhalation exposure causes blood effects in laboratory animals.
Aspiration hazard	May be fatal if swallowed and enters airways.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	2628 mg/kg
ATEmix (dermal)	2016 mg/kg
ATEmix (inhalation-dust/mist)	18.8 mg/l
ATEmix (inhalation-vapor)	6 mg/l

12. ECOLOGICAL INFORMATION

This product contains a chemical/chemicals which is/are listed as a marine pollutant(s) according to DOT.

Ecotoxicity

Toxic to aquatic life with long lasting effects.

9.82 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Hydrotreated Light Petroleum Distillates 64742-47-8		45: 96 h Pimephales promelas mg/L LC50 flow-through 2.2: 96 h Lepomis macrochirus mg/L LC50 static 2.4: 96 h Oncorhynchus mykiss mg/L LC50 static		
2-Butoxyethanol 111-76-2		1490: 96 h Lepomis macrochirus mg/L LC50 static 2950: 96 h Lepomis macrochirus mg/L LC50		1000: 48 h Daphnia magna mg/L EC50
Glycol Ether PM Acetate 108-65-6		161: 96 h Pimephales promelas mg/L LC50 static		500: 48 h Daphnia magna mg/L EC50
Light Aromatic Solvent Naphtha 64742-95-6		9.22: 96 h Oncorhynchus mykiss mg/L LC50		6.14: 48 h Daphnia magna mg/L EC50
1,2,4-Trimethylbenzene 95-63-6		7.19 - 8.28: 96 h Pimephales promelas mg/L LC50 flow-through 7.72: 96 h Pimephales promelas mg/L LC50 flow-through		6.14: 48 h Daphnia magna mg/L EC50

Persistence and degradability

This product contains components which may be persistent in the environment.

Bioaccumulation

Bioaccumulative potential.

Mobility

The product is insoluble and floats on water.

Chemical Name	Partition coefficient
2-Butoxyethanol 111-76-2	0.83
Glycol Ether PM Acetate 108-65-6	0.43

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Dispose of in accordance with federal, state and local regulations.

Contaminated packaging

Do not reuse container. Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

Limited quantity (LQ) < 5 Liters

DOT

UN/ID No NA1993
Proper Shipping Name: Combustible liquids, n.o.s. (2-Ethylhexyl Nitrate, Glycol Ether), Marine Pollutant
Hazard Class COMB. LIQ.
Packing Group: III
Marine pollutant This product contains a chemical/chemicals which is/are listed as a marine pollutant(s) according to DOT.
Emergency Response Guide Number 128

IATA

UN/ID No UN3082
Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (2-Ethylhexyl Nitrate, Glycol Ether), Marine Pollutant
Hazard Class 9
Packing Group: III

IMDG

UN/ID No UN3082
Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (2-Ethylhexyl Nitrate, Glycol Ether), Marine Pollutant
Hazard Class 9
Packing Group: III
Marine pollutant This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO.

15. REGULATORY INFORMATION

International Inventories

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS Number	Weight %	SARA 313 - Threshold Values %
2-Butoxyethanol 111-76-2	111-76-2	5-15	1.0 % de minimis concentration
1,2,4-Trimethylbenzene 95-63-6	95-63-6	0.25-0.60	1.0% de minimis concentration

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	Yes

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

State Regulations (RTK)

California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm:

Chemical Name	CAS Number	California Proposition 65
Naphthalene	91-20-3	Carcinogen
Ethylene glycol	107-21-1	Developmental
Benzene	71-43-2	Carcinogen Developmental Male Reproductive
Toluene	108-88-3	Developmental
Cumene	98-82-8	Carcinogen
Ethylbenzene	100-41-4	Carcinogen
Benzo[a]pyrene	50-32-8	Carcinogen

U.S. State Right-to-Know Regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION**NFPA Rating**

Health hazards 2

Flammability 2

Instability 1

Physical and Chemical Properties -

HMIS Rating

Health hazards 2*

Flammability 2

Physical hazards 1

Personal protection B

*Chronic Hazard Star Legend*** = Chronic Health Hazard***Prepared by**

Environmental Health and Safety Department

Issue Date

01-24-2020

Revision Date

12-31-2019

Revision Note

This data sheet contains changes from the previous version in section(s): 3,15.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet