

SECTION 1: Product and company identification

Trade name : Vacate
 Use of the substance/mixture : Herbicide
 Industrial use
 Product code : 0314
 Company : Total Solutions
 P.O. Box 240014
 Milwaukee, WI 53224 - USA
 T 800-743-6417
athea.com
 Contact: Technical Department
 Emergency number : Chemtrec: 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
 Flam. Liq. 4 H227
 Eye Irrit. 2A H319
 Asp. Tox. 1 H304

2.2. Label elements

GHS US labelling
 Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger
 Hazard statements (GHS US) : GHS07
 : Combustible liquid
 May be fatal if swallowed and enters airways.
 Causes serious eye irritation.
 Precautionary statements (GHS US) : GHS08
 : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 Wash thoroughly after handling
 Wear protective clothing, eye protection, protective gloves.
 If swallowed: Immediately call a doctor, a POISON CENTER.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Do NOT induce vomiting.
 If eye irritation persists: Get medical advice/attention.
 In case of fire: Use ABC-powder, alcohol resistant foam, carbon dioxide (CO2) to extinguish.
 Store in a well-ventilated place. Keep cool.
 Store locked up.
 Dispose of contents/container to comply with local/regional/national/international regulations..

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Alkanes, C14-16	(CAS-No.) 90622-46-1	10- 30	Asp. Tox. 1, H304
Butoxydiglycol	(CAS-No.) 112-34-5	10- 30	Eye Irrit. 2A, H319

2-ethylhexyl 2,4-dichlorophenoxyacetate	(CAS-No.) 1928-43-4	0.5 - 1.5	Acute Tox. 4 (Oral), H302
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All hazardous chemicals, as determined by 29 CFR 1910.1200 have been listed. A specific chemical identity and/or percentage of composition has been withheld as a trade secret. Any concentration shown as a range is to protect confidentiality or is due to batch variation.

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
- First-aid measures after skin contact : Take off immediately all contaminated clothing and wash it before reuse. Wash skin with plenty of water. Soap may be used. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects : If you feel unwell, seek medical advice.
- Symptoms/effects after inhalation : Irritation of the respiratory tract.
- Symptoms/effects after skin contact : Irritation. Repeated exposure may cause skin dryness or cracking.
- Symptoms/effects after eye contact : Causes serious eye irritation.
- Symptoms/effects after ingestion : May be fatal if swallowed and enters airways.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : ABC powder. Alcohol-resistant foam. Carbon dioxide.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Reactivity : On burning: release of toxic and corrosive gases/vapours (nitrous vapours, sulphur oxides, carbon monoxide - carbon dioxide). If the product is involved in a fire, it can release toxic chlorine gases. Reacts violently with (strong) oxidizers.

5.3. Advice for firefighters

- Firefighting instructions : Exercise caution when fighting any chemical fire. In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. Use water spray or fog for cooling exposed containers. Take account of environmentally hazardous firefighting water.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : No flames, no sparks. Eliminate all sources of ignition.

6.1.1. For non-emergency personnel

- Protective equipment : Protective goggles. Gloves. Protective clothing.
- Emergency procedures : Evacuate unnecessary personnel. No naked flames or sparks.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Stop leak if safe to do so. Stop release. Ventilate area.

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

- For containment : Contain released product, pump into suitable containers.
- Methods for cleaning up : This material and its container must be disposed of in a safe way, and as per local legislation. Take up liquid spill into inert absorbent material, e.g.: sand/earth. Clean contaminated surfaces with a soap solution.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Comply with the legal requirements. Do not handle until all safety precautions have been read and understood. Do not breathe vapours. Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Do not get in eyes, on skin, or on clothing. Handle and open the container with care. Keep away from sources of ignition - No smoking. Take precautions against electrostatic charges. Obtain special instructions before use. Remove contaminated clothing immediately.
- Hygiene measures : Wash thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Comply with applicable regulations. Proper grounding procedures to avoid static electricity should be followed.
- Storage conditions : Keep container tightly closed. Keep only in the original container in a cool, well ventilated place away from: sparks, open flames, excessive heat.
- Incompatible products : Oxidizing agent.
- Incompatible materials : Sources of ignition.
- Storage area : Store away from heat. Store in a cool area. Store in a dry area. Store in a well-ventilated place. Keep locked up.
- Special rules on packaging : Keep only in original container. meet the legal requirements.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

2-ethylhexyl 2,4-dichlorophenoxyacetate (1928-43-4)

Not applicable

Butoxydiglycol (112-34-5)

ACGIH	ACGIH OEL TWA [ppm]	10 ppm
ACGIH	Remark (ACGIH)	TLV® Basis: Hematologic, liver & kidney eff

Alkanes, C14-16 (90622-46-1)

Not applicable

8.2. Exposure controls

- Personal protective equipment : Use appropriate personal protective equipment when risk assessment indicates this is necessary. Gloves. Protective clothing. Protective goggles. Safety glasses.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Colorless to yellow brown oily liquid
- Odour : Hydrocarbon odor
- Odour threshold : No data available
- pH : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available
- Flash point : > 210 °F
- Relative evaporation rate (butylacetate=1) : No data available
- Flammability (solid, gas) : No data available
- Explosive limits : No data available
- Explosive properties : No data available
- Oxidising properties : No data available

Vapour pressure	: No data available
Relative density	: No data available
Relative vapour density at 20 °C	: No data available
Density	: 0.84 g/ml
Solubility	: Insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Partition coefficient n-octanol/water (Log Kow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: < 20 cSt
Viscosity, dynamic	: No data available
VOC content	: < 3 %

SECTION 10: Stability and reactivity

10.1. Reactivity

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, sulphur oxides, carbon monoxide - carbon dioxide). If the product is involved in a fire, it can release toxic chlorine gases. Reacts violently with (strong) oxidizers.

10.2. Chemical stability

Combustible liquid. Stable under normal conditions. Risk of explosion if heated under confinement. Heating may cause a fire or explosion.

10.3. Possibility of hazardous reactions

Refer to section 10.1 on Reactivity.

10.4. Conditions to avoid

Refer to Section 10 on Incompatible Materials. Open flame. Overheating. Sparks.

10.5. Incompatible materials

Oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition produces: CO, CO₂, Oxides of nitrogen and other potentially toxic fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

2-ethylhexyl 2,4-dichlorophenoxyacetate (1928-43-4)

LD50 oral rat	896 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit, Dermal)
LC50 Inhalation - Rat	> 5.4 mg/l (4 h, Rat, Inhalation)
ATE CLP (oral)	896 mg/kg bodyweight

Alkanes, C14-16 (90622-46-1)

LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat	> 5.8 mg/l/4h

Skin corrosion/irritation : Not classified
 Serious eye damage/irritation : Causes serious eye irritation.
 Respiratory or skin sensitisation : Not classified
 Germ cell mutagenicity : Not classified
 Carcinogenicity : Not classified

Reproductive toxicity : Not classified
 STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : May be fatal if swallowed and enters airways.
 Symptoms/effects after inhalation : Irritation of the respiratory tract.
 Symptoms/effects after skin contact : Irritation. Repeated exposure may cause skin dryness or cracking.

Symptoms/effects after eye contact : Causes serious eye irritation.
Symptoms/effects after ingestion : May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

2-ethylhexyl 2,4-dichlorophenoxyacetate (1928-43-4)

Partition coefficient n-octanol/water (Log Pow)	5.78 (Experimental value)
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container to comply with local/regional/national/international regulations.
Product/Packaging disposal recommendations : Dispose of contents/container to comply with local/regional/national regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT : Not regulated for transport

Additional information

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

EPA Registration Number: 10088-2

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label

Caution: Harmful if swallowed. Harmful if absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing.

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

2-ethylhexyl 2,4-dichlorophenoxyacetate	1928-43-4	0.5 - 1.5%
Butoxydiglycol	112-34-5	10- 30%

Naphthalene	(91-20-3)	CERCLA RQ100 lb
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This product can expose you to Naphthalene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

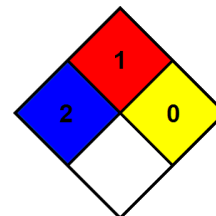
SECTION 16: Other information

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Prepared by: Technical Department

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. No warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Our company assumes no responsibility for personal injury or property damage to the vendee, users or third parties caused by the material. Such vendees or users assume all risks associated with the use of this material.