



# D-638

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
SDS Reference Number: AD012925  
Issue date: 6/26/2026 Version: 1.0

### SECTION 1 Identification

#### 1.1. Product identifier

Product form : Mixture  
Product name : D-638  
Product code : 3000505,1001401,1001402,1001403

#### 1.2. Other means of identification

Registration Number : EPA Registration Number: 42750-36

#### 1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Herbicide  
Restrictions on use : It is a violation of Federal law to use this product in a manner inconsistent with its label, Use in accordance with label directions for use.

#### 1.4. Supplier's details

Albaugh, LLC  
1525 NE 36th Street  
Ankeny, Iowa 50021  
United States  
T 800-247-8013  
[ContactUS@albaughllc.com](mailto:ContactUS@albaughllc.com) - [albaughllc.com](http://albaughllc.com)

#### 1.5. Emergency phone number

Emergency number : For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident:  
• Call CHEMTREC Day or Night within USA and Canada: 1-800-424-9300, Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

For Medical Emergencies Only:  
• Call Albaugh LLC Day or Night within USA and Canada: 1-888-347-6732  
24 hours a day, 7 days a week

### SECTION 2 Hazard Identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Flammable liquid, Category 4	H227	Combustible liquid.
Acute toxicity (oral), Category 4	H302	Harmful if swallowed.
Acute toxicity (inhalation:dust,mist), Category 4	H332	Harmful if inhaled.
Serious eye damage/eye irritation, Category 1	H318	Causes serious eye damage.
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335	May cause respiratory irritation.
Aspiration hazard, Category 1	H304	May be fatal if swallowed and enters airways.
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment — Chronic Hazard, Category 1	H410	Very toxic to aquatic life with long lasting effects.

Full text of H statements : see section 16

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### 2.2. Label elements

#### GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: H227 - Combustible liquid  
H302+H332 - Harmful if swallowed or if inhaled  
H304 - May be fatal if swallowed and enters airways  
H318 - Causes serious eye damage  
H335 - May cause respiratory irritation  
H400 - Very toxic to aquatic life  
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (GHS US)

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P261 - Avoid breathing dust, fume, gas, mist, vapors, spray.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P271 - Use only outdoors or in a well-ventilated area.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection.  
P301+P310 - If swallowed: Immediately call a poison center or doctor.  
P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell.  
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 - Immediately call a poison center or doctor.  
P312 - Call a poison center or doctor if you feel unwell.  
P330 - Rinse mouth.  
P331 - Do NOT induce vomiting.  
P370+P378 - In case of fire: Use appropriate media to extinguish.  
P391 - Collect spillage.  
P403 - Store in a well-ventilated place.  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.  
P405 - Store locked up.  
P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

### 2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

### 2.4. Hazards not otherwise classified

No additional information available

### 2.5. Unknown acute toxicity

No additional information available

## SECTION 3 Composition/information on ingredients

### 3.1. Substances

Not applicable

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### 3.2. Mixtures

Name	Product identifier	%	GHS US classification
solvent naphtha (petroleum), heavy aromatic (Additive)	CAS-No.: 64742-94-5	31 – 33	Flam. Liq. 4, H227 Acute Tox. 3 (Inhalation:dust,mist), H331 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,4-Dichlorophenoxyacetic acid Butoxyethyl Ester (Active substance (Biocide))	CAS-No.: 1929-73-3	23.7 – 25.2	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,4-dichlorophenoxyacetic acid (Active substance (Biocide))	CAS-No.: 94-75-7	13.11 – 14.5	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Acute 3, H402 Aquatic Chronic 3, H412

Full text of hazard classes and H-statements : see section 16

## SECTION 4 First aid measures

### 4.1. Description of necessary first-aid measures

First-aid measures general	: Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Call a physician immediately.
Personal protection for first-aid responders.	: First aid workers will be equipped with suitable personal protective equipment.

### 4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: Harmful if inhaled. May cause respiratory irritation.
Symptoms/effects after skin contact	: None under normal conditions.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Harmful if swallowed. Risk of lung edema.

### 4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment	: Treat symptomatically.
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## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

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### 5.2. Specific hazards arising from the chemical

- Fire hazard : Combustible liquid.  
Explosion hazard : No direct explosion hazard.  
Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.  
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6 Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.

#### For non-emergency personnel

- Protective equipment : Wear recommended personal protective equipment.  
Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

#### For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".  
Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.  
Environmental precautions : Avoid release to the environment.

### 6.2. Methods and materials for containment and cleaning up

- For containment : Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.  
Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.  
Other information : Dispose of materials or solid residues at an authorized site.

For further information refer to section 13.

## SECTION 7 Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.  
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.  
Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.

### 7.2. Conditions for safe storage, including incompatibilities

- Technical measures : Keep in a cool, well-ventilated place away from heat.  
Storage conditions : Store in a well-ventilated place. Keep cool. Store locked up. Keep container tightly closed.  
Packaging materials : Always store product in container of same material as original container.

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### SECTION 8 Exposure controls/personal protection

#### 8.1. Control parameters

2,4-dichlorophenoxyacetic acid (94-75-7)	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	2,4-D
ACGIH® TLV® TWA	10 mg/m <sup>3</sup> (Inhalable fraction)
Remark (ACGIH®)	TLV® Basis: Thyroid eff; kidney tubular dam. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2025
<b>USA - OSHA - Occupational Exposure Limits</b>	
Local name	2,4-D (Dichlorophen-oxyacetic acid)
OSHA PEL TWA	10 mg/m <sup>3</sup>
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
<b>USA - Cal/OSHA - Occupational Exposure Limits</b>	
Local name	2,4-D; 2,4-dichlorophenoxyacetic acid
Cal/OSHA PEL (OEL TWA)	10 mg/m <sup>3</sup>
Regulatory reference	California Division of Occupational Safety and Health (Cal/OSHA) - Permissible Exposure Limit for Chemical Contaminants (Table AC-1)
<b>USA - NIOSH - Occupational Exposure Limits</b>	
Local name	2,4-D (Dichlorophen-oxyacetic acid)
NIOSH REL 10h TWA	10 mg/m <sup>3</sup>
Regulatory reference (US-NIOSH)	OSHA Annotated Table Z-1 (NIOSH Pocket Guide to Chemical Hazards (NPG))

#### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.  
Environmental exposure controls : Avoid release to the environment.

#### 8.3. Individual protection measures, such as personal protective equipment

##### Personal protective equipment:

Wear recommended personal protective equipment.

<b>Hand protection:</b>
Protective gloves
<b>Eye protection:</b>
Safety glasses
<b>Skin and body protection:</b>
Wear suitable protective clothing
<b>Respiratory protection:</b>
[In case of inadequate ventilation] wear respiratory protection.

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### Personal protective equipment symbol(s):



## SECTION 9 Physical and chemical properties

### 9.1. Basic physical and chemical properties

Physical state	: Liquid
Appearance	: Amber liquid.
Color	: amber
Odor	: Phenolic
Odor threshold	: No data available
pH	: 2.5
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 65 °C
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Density	: 1.0653 g/ml
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: 11.95 mm <sup>2</sup> /s
Viscosity, dynamic	: 12.73 cP @21 C
Explosion limits	: No data available
Explosive properties	: Not explosive.
Oxidizing properties	: Not oxidising.
Particle characteristics	: No data available

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

## SECTION 10 Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

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### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11 Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Inhalation:dust,mist: Harmful if inhaled.

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LD50 oral rat	> 1030 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
ATE US (oral)	1223.154 mg/kg body weight
ATE US (dust, mist)	1.563 mg/l/4h

#### 2,4-Dichlorophenoxyacetic acid Butoxyethyl Ester (1929-73-3)

ATE US (oral)	544.979 mg/kg body weight
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#### 2,4-dichlorophenoxyacetic acid (94-75-7)

LD50 oral rat	375 mg/kg (Rat, Literature study, Oral)
LD50 dermal rabbit	1400 mg/kg body weight (Rabbit, Literature study, Skin)
ATE US (oral)	375 mg/kg body weight
ATE US (dermal)	1400 mg/kg body weight

#### solvent naphtha (petroleum), heavy aromatic (64742-94-5)

LD50 oral rat	> 5000 mg/kg Source: IUCLID
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: other:
LD50 dermal rabbit	> 2000 mg/kg Source: RTECS
LC50 Inhalation - Rat (Dust/Mist)	> 0.59 mg/l Source: RTECS
ATE US (dust, mist)	0.5 mg/l/4h

Skin corrosion/irritation : Not classified  
Causes skin irritation  
pH: 2.5

#### 2,4-dichlorophenoxyacetic acid (94-75-7)

pH	No data available in the literature
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Serious eye damage/irritation : Causes serious eye damage.  
Causes serious eye irritation  
pH: 2.5

#### 2,4-dichlorophenoxyacetic acid (94-75-7)

pH	No data available in the literature
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Respiratory or skin sensitization : Not classified (Based on available data, the classification criteria are not met)

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Germ cell mutagenicity : Not classified  
Carcinogenicity : The International Agency for Research on Cancer (IARC) lists exposure to chlorophenoxy herbicides as a class 2B carcinogen, the category for limited evidence for carcinogenicity in humans. Current 2,4-D lifetime feeding studies in rats and mice did not show carcinogenic potential. The US EPA has given 2,4-D a Class D classification (not classifiable as to human carcinogenicity).  
Based on available data, the classification criteria are not met

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IARC group	2B - Possibly carcinogenic to humans
National Toxicity Program (NTP) Status	Not classified as a carcinogen.

2,4-dichlorophenoxyacetic acid (94-75-7)	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity : Not classified

solvent naphtha (petroleum), heavy aromatic (64742-94-5)	
NOAEL (animal/male, F0/P)	35 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other:
NOAEL (animal/female, F0/P)	125 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other:

STOT-single exposure : May cause respiratory irritation.

2,4-Dichlorophenoxyacetic acid Butoxyethyl Ester (1929-73-3)	
STOT-single exposure	May cause respiratory irritation.

2,4-dichlorophenoxyacetic acid (94-75-7)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

solvent naphtha (petroleum), heavy aromatic (64742-94-5)	
LOAEC (inhalation, rat, vapor, 90 days)	4.71 mg/l air Animal: rat, Guideline: EU Method B.29 (Sub-Chronic Inhalation Toxicity:90-Day Study)
NOAEC (inhalation, rat, vapor, 90 days)	2.355 mg/l air Animal: rat, Guideline: EU Method B.29 (Sub-Chronic Inhalation Toxicity:90-Day Study)

Aspiration hazard : May be fatal if swallowed and enters airways.

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Viscosity, kinematic	11.95 mm <sup>2</sup> /s

2,4-dichlorophenoxyacetic acid (94-75-7)	
Viscosity, kinematic	Not applicable (solid)

Symptoms/effects after inhalation : Harmful if inhaled. May cause respiratory irritation.  
Symptoms/effects after skin contact : None under normal conditions.  
Symptoms/effects after eye contact : Serious damage to eyes.  
Symptoms/effects after ingestion : Harmful if swallowed. Risk of lung edema.

## SECTION 12 Ecological information

### 12.1. Ecotoxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.

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Hazardous to the aquatic environment, short-term : Very toxic to aquatic life.  
(acute)

Hazardous to the aquatic environment, long-term : Very toxic to aquatic life with long lasting effects.  
(chronic)

<b>2,4-Dichlorophenoxyacetic acid Butoxyethyl Ester (1929-73-3)</b>	
LC50 - Fish [1]	1441 µg/l Rainbow trout
EC50 - Crustacea [1]	4.966 mg/l Daphnia
ErC50 algae	0.397 mg/l Lemna
NOEC chronic fish	0.055 mg/l Fathead minnow
NOEC chronic crustacea	0.2 mg/l Daphnia
NOEC chronic algae	0.141 mg/l Lemna

<b>2,4-dichlorophenoxyacetic acid (94-75-7)</b>	
LC50 - Fish [1]	358 mg/l (96 h, Pisces, Literature study)
EC50 - Crustacea [1]	25 mg/l (48 h, Literature study)
EC50 96h - Algae [1]	33.8 mg/l (Literature study)

<b>solvent naphtha (petroleum), heavy aromatic (64742-94-5)</b>	
LC50 - Fish [1]	45 mg/l Source: IUCLID
EC50 - Crustacea [1]	0.95 mg/l Source: IUCLID
EC50 - Other aquatic organisms [1]	2.9 mg/l Test organisms (species): other:
LC50 - Fish [2]	6.1 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 72h - Algae [1]	2.5 mg/l Source: IUCLID

### 12.2. Persistence and degradability

<b>D-638</b>	
Persistence and degradability	Not rapidly degradable

<b>2,4-Dichlorophenoxyacetic acid Butoxyethyl Ester (1929-73-3)</b>	
Persistence and degradability	Not rapidly degradable

<b>2,4-dichlorophenoxyacetic acid (94-75-7)</b>	
Persistence and degradability	Biodegradable in the soil, Inhibition of nitrification, Readily biodegradable in water.

<b>solvent naphtha (petroleum), heavy aromatic (64742-94-5)</b>	
Persistence and degradability	Not rapidly degradable

### 12.3. Bioaccumulative potential

<b>2,4-dichlorophenoxyacetic acid (94-75-7)</b>	
BCF - Fish [1]	< 10 (Other, 3 day(s), Leuciscus idus, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	2.58 – 2.83 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

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solvent naphtha (petroleum), heavy aromatic (64742-94-5)	
Partition coefficient n-octanol/water (Log Pow)	2.9 – 6.1 Source: IUCLID

### 12.4. Mobility in soil

2,4-dichlorophenoxyacetic acid (94-75-7)	
Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.66 (log Koc, SRC PCKOCWIN v2.0, Literature study)
Ecology - soil	Highly mobile in soil.

### 12.5. Other adverse effects

Ozone : Not classified  
Fluorinated greenhouse gases : No

## SECTION 13 Disposal considerations

Regional waste regulation : Disposal must be done according to official regulations.  
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.  
Sewage disposal recommendations : Disposal must be done according to official regulations.  
Product/Packaging disposal recommendations : Disposal must be done according to official regulations.  
Additional information : Do not re-use empty containers.

## SECTION 14 Transport information

DOT	IMDG	IATA
NOTE: < or = 36 GALLONS PER COMPLETE PACKAGE = DOT NOT REGULATED, NOTE: > 36 GALLONS but < 119 GALLONS PER COMPLETE PACKAGE: <b>UN 3082, Environmentally hazardous substances, liquid, n.o.s. (2,4-D Ester), 9, III, RQ,</b> NOTE: > 119 GALLONS PER COMPLETE PACKAGE = <b>NA1993, Combustible, Liquid, n.o.s. (Contains Petroleum Distillates, 2,4-D Ester), Comb Liq, III, RQ</b>		
<b>14.1. UN number</b>		
NA1993	UN3082	UN3082
<b>14.2. Proper Shipping Name</b>		
Compounds, weed killing, liquid (Contains Petroleum Distillates, 2,4-D Ester)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D Ester)	Environmentally hazardous substance, liquid, n.o.s. (2,4-D Ester)
<b>14.3. Transport hazard class(es)</b>		
3	9	9
<b>14.4. Packing group</b>		
III	III	III

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DOT	IMDG	IATA
NOTE: < or = 36 GALLONS PER COMPLETE PACKAGE = DOT NOT REGULATED, NOTE: > 36 GALLONS but < 119 GALLONS PER COMPLETE PACKAGE: <b>UN 3082, Environmentally hazardous substances, liquid, n.o.s. (2,4-D Ester), 9, III, RQ,</b> NOTE: > 119 GALLONS PER COMPLETE PACKAGE = <b>NA1993, Combustible, Liquid, n.o.s. (Contains Petroleum Distillates, 2,4-D Ester), Comb Liq, III, RQ</b>		
<b>14.5. Environmental hazards</b>		
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes

### 14.6. Transport in bulk

Not applicable

### 14.7. Special precautions for user

<b>DOT</b>	
UN-No. (DOT)	: NA1993
DOT Special Provisions (49 CFR 172.102)	: B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable. B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks. IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 150
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 203
DOT Packaging Bulk (49 CFR 173.xxx)	: 242
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 220 L
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
<b>IMDG</b>	
Special provision (IMDG)	: 274, 335, 375, 969
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: LP01, P001
Packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1, TP29
EmS-No. (Fire)	: F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE

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EmS-No. (Spillage) : S-F - SPILLAGE SCHEDULE Foxtrot - WATER-SOLUBLE MARINE POLLUTANTS  
Stowage category (IMDG) : A

### IATA

Special provision (IATA) : A97, A158, A197, A215  
PCA Excepted quantities (IATA) : E1  
PCA Limited quantities (IATA) : Y964  
PCA limited quantity max net quantity (IATA) : 30kgG  
PCA packing instructions (IATA) : 964  
PCA max net quantity (IATA) : 450L  
CAO packing instructions (IATA) : 964  
CAO max net quantity (IATA) : 450L  
ERG code (IATA) : 9L

## SECTION 15 Regulatory information

### 15.1. Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
2,4-Dichlorophenoxyacetic acid Butoxyethyl Ester	1929-73-3	Not present	-	
2,4-dichlorophenoxyacetic acid	94-75-7	Present	Active	
solvent naphtha (petroleum), heavy aromatic	64742-94-5	Present	Active	

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.

2,4-dichlorophenoxyacetic acid	CAS-No. 94-75-7	13.11 – 14.5%
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### 2,4-dichlorophenoxyacetic acid (94-75-7)

Listed on EPA Hazardous Air Pollutant (HAPS)  
Listed on EPA HAPs Chronic Dose Response Assessment List - Carcinogens  
Listed on EPA HAPs Acute Dose Response Assessment List – Exposure limits

CERCLA RQ	100 lb
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### FIFRA Labelling

EPA Registration Number	42750-36
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.	
FIFRA Signal Word	Danger
FIFRA Precautionary Statement	KEEP OUT OF REACH OF CHILDREN. Hazards To Humans and Domestic Animals.
FIFRA Human Health Hazards	Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Harmful if swallowed, inhaled or absorbed through skin. Avoid breathing spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

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FIFRA Labelling	
FIFRA First Aid	<p><b>IF IN EYES:</b></p> <ul style="list-style-type: none"><li>•Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>•Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>•Call a poison control center or doctor for treatment advice.</li></ul> <p><b>IF SWALLOWED:</b></p> <ul style="list-style-type: none"><li>•Immediately call a poison control center or doctor.</li><li>•Do not induce vomiting unless told to do so by a poison control center or doctor.</li><li>•Do not give any liquid to the person.</li><li>•Do not give anything by mouth to an unconscious person.</li></ul> <p><b>IF ON SKIN OR CLOTHING:</b></p> <ul style="list-style-type: none"><li>•Take off contaminated clothing.</li><li>•Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>•Call a poison control center or doctor for treatment advice.</li></ul> <p><b>IF INHALED:</b></p> <ul style="list-style-type: none"><li>•Move person to fresh air.</li><li>•If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li><li>•Call a poison control center or doctor for further treatment advice.</li></ul> <p><b>NOTE TO PHYSICIAN</b> - Probable mucosal damage may contraindicate the use of gastric lavage.</p>
FIFRA Environmental Hazards	<p>This pesticide may be toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate. Apply this product only as directed on label.</p>
FIFRA Other	<p><b>STORAGE AND DISPOSAL</b></p> <p>Do not contaminate water, food or feed by storage or disposal.</p> <p><b>PESTICIDE STORAGE:</b> Store in original container in a dry, secured storage area. Keep container tightly closed when not in use.</p> <p><b>PESTICIDE DISPOSAL:</b> Open dumping is prohibited. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA regional office for guidance.</p>

### 15.2. International regulations

#### CANADA

##### 2,4-dichlorophenoxyacetic acid (94-75-7)

Listed on the Canadian DSL (Domestic Substances List)

##### solvent naphtha (petroleum), heavy aromatic (64742-94-5)

Listed on the Canadian DSL (Domestic Substances List)

#### EU-Regulations

No additional information available

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### National regulations

#### 2,4-dichlorophenoxyacetic acid (94-75-7)

Listed on IARC (International Agency for Research on Cancer)  
Listed on EPA HAPs Chronic Dose Response Assessment List - Carcinogens  
Listed on EPA HAPs Acute Dose Response Assessment List – Exposure limits  
Listed on INSQ (Mexican National Inventory of Chemical Substances)

#### solvent naphtha (petroleum), heavy aromatic (64742-94-5)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

### 15.3. State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

## SECTION 16 Other information

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Issue date : 6/26/2026

#### Full text of hazard classes and H-statements

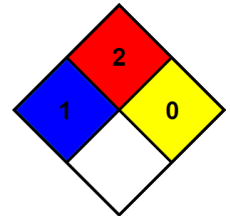
H227	Combustible liquid
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H312	Harmful in contact with skin
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H331	Toxic if inhaled
H332	Harmful if inhaled
H335	May cause respiratory irritation
H400	Very toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

NFPA health hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard : 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.

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

Hazard Rating Health : 1 Slight Hazard - Irritation or minor reversible injury possible



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Flammability	: 2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II & IIIA)
Physical	: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

### SDS USA-ALBAUGH

The information provided in this Safety Data Sheet is correct to the best of Albaugh, LLC 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.