

## 1. Identification

**Product identifier** ALCO™ CITRUS FIX™  
**Other means of identification**  
     **SDS number** 110  
     **QAD Number** 10115  
**Recommended use** Plant Growth Regulator  
**Recommended restrictions** Keep out of the Reach of Children!  
**Product registration number** 5481-145

### Manufacturer/Importer/Supplier/Distributor information

#### Manufacturer

**Company name** AMVAC Chemical Corporation  
**Address** 4100 E Washington Blvd  
 Los Angeles, CA 90023 USA  
**Telephone** AMVAC Chemical Corp 323-264-3910  
 AMVAC Chemical Corp 323-268-1028 (FAX)  
**Website** www.Amvac-Chemical.com  
**E-mail** CustServ@Amvac-Chemical.com  
**Emergency phone number** Medical 888-681-4261  
 CHEMTREC® (USA+Canada) 800-424-9300  
 Product Use 888-462-6822  
 CHEMTREC® (Outside USA) +1-703-527-3887

## 2. Hazard(s) identification

**Physical hazards** Flammable liquids Category 3  
**Health hazards** Acute toxicity, oral Category 4  
 Germ cell mutagenicity Category 1B  
 Specific target organ toxicity, repeated exposure Category 1  
 Aspiration hazard Category 1  
**Environmental hazards** Hazardous to the aquatic environment, acute hazard Category 1  
 Hazardous to the aquatic environment, long-term hazard Category 1  
**OSHA defined hazards** Not classified.

#### Label elements



**Signal word** Danger

**Hazard statement**

Flammable liquid and vapor. Harmful if swallowed. May be fatal if swallowed and enters airways. May cause genetic defects. Causes damage to organs through prolonged or repeated exposure. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

**Precautionary statement**

**Prevention**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

<b>Response</b>	If swallowed: Immediately call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If exposed or concerned: Get medical advice/attention. Rinse mouth. Do NOT induce vomiting. In case of fire: Use appropriate media to extinguish. Collect spillage.
<b>Storage</b>	Store in a well-ventilated place. Keep cool. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use. United States Environmental Protection Agency Labeling Requirements:

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS.

CAUTION. Causes moderate eye irritation. Harmful if swallowed, absorbed through the skin or inhaled. Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or spray mist.

#### ENVIRONMENTAL HAZARDS

This pesticide is 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. Do not apply when weather conditions favor drift from the treated area. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This chemical has properties and characteristics associated with chemical detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

#### PHYSICAL OR CHEMICAL HAZARDS

Combustible. Do not use or store near heat of open flame.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
2, 4-Dichlorophenoxy)acetic acid, isopropyl ester		94-11-1	45
Aromatic Petroleum Distillates		64742-95-6	<40

#### Impurities

Chemical name	CAS number	%
2,4-Dichlorophenoxyacetic Acid [2,4-D acid]	94-75-7	<0.8

**Composition comments** Occupational Exposure Limits for impurities are listed in Section 8. All concentrations are in percent by weight.

### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Get medical attention if irritation develops and persists. Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Take off contaminated clothing and wash before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eyes and lids with water. If there will be a delay in getting medical attention, rinse the eyes an additional 15 minutes.
<b>Ingestion</b>	Call a physician or poison control center immediately. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Immediately give large quantities of water to drink. Do not induce vomiting.

<b>Most important symptoms/effects, acute and delayed</b>	Direct contact with eyes may cause temporary irritation. Prolonged exposure may cause chronic effects. Nausea, headaches, eye irritation. The presence of petroleum distillates may lead to central nervous system (CNS) depression, drying of the skin, dermatitis. Aspiration (breathing) of vomitus after swallowing may lead to aspiration pneumonitis.
<b>Indication of immediate medical attention and special treatment needed</b>	Preexisting neurological problems may be aggravated by exposure to this product. Near fatal exposures may result in congestive effects to a wide variety of organs based on the presence of petroleum distillates. Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed. This product contains petroleum distillates. Gastric lavage should be considered following intubation with a cuffed endotracheal tube to prevent aspiration of vomitus. Contact your local or state poison control center for further information.
<b>General information</b>	Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.
<b>5. Fire-fighting measures</b>	
<b>Suitable extinguishing media</b>	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	DO NOT USE WATER STREAM.
<b>Specific hazards arising from the chemical</b>	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed. This product emits hazardous fumes of unknown composition when burned.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	Flammable liquid and vapor.
<b>6. Accidental release measures</b>	
<b>Personal precautions, protective equipment and emergency procedures</b>	Immediately evacuate personnel to safe areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.  Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Clean the area with common powdered household detergent and a stiff brush and just enough water to make a slurry.
<b>Environmental precautions</b>	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

## 7. Handling and storage

### Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

### Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS). Do not allow material to freeze. Do not store near food, feed, fertilizers, seeds, insecticides or fungicides.

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
BENZENE,1-METHYLETHY L- (CAS 98-82-8)	PEL	245 mg/m3
Xylene (CAS 1330-20-7)	PEL	50 ppm 435 mg/m3 100 ppm
<b>Impurities</b>	<b>Type</b>	<b>Value</b>

2,4-Dichlorophenoxyacetic Acid [2,4-D acid] (CAS 94-75-7)	PEL	10 mg/m3
---	-----	----------

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
1,2, 4-Trimethylbenzene (CAS 95-63-6)	TWA	25 ppm	
BENZENE,1-METHYLETHY L- (CAS 98-82-8)	TWA	50 ppm	
Xylene (CAS 1330-20-7)	STEL	150 ppm	
	TWA	100 ppm	
<b>Impurities</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>

2,4-Dichlorophenoxyacetic Acid [2,4-D acid] (CAS 94-75-7)	TWA	10 mg/m3	Inhalable fraction.
---	-----	----------	---------------------

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
1,2, 4-Trimethylbenzene (CAS 95-63-6)	TWA	125 mg/m3
BENZENE,1-METHYLETHY L- (CAS 98-82-8)	TWA	25 ppm 245 mg/m3
		50 ppm
<b>Impurities</b>	<b>Type</b>	<b>Value</b>
2,4-Dichlorophenoxyacetic Acid [2,4-D acid] (CAS 94-75-7)	TWA	10 mg/m3

### Biological limit values

#### ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Xylene (CAS 1330-20-7)	1.5 g/g	Methylhippuric acids	Creatinine in urine	*

\* - For sampling details, please see the source document.

## Exposure guidelines

### US ACGIH Threshold Limit Values: Skin designation

2,4-Dichlorophenoxyacetic Acid [2,4-D acid] (CAS 94-75-7) Can be absorbed through the skin.

### US NIOSH Pocket Guide to Chemical Hazards: Skin designation

BENZENE,1-METHYLETHYL- (CAS 98-82-8) Can be absorbed through the skin.

### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

BENZENE,1-METHYLETHYL- (CAS 98-82-8) Can be absorbed through the skin.

### Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

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

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

#### Skin protection

**Hand protection** Wear protective gloves.

#### Other

Wear suitable protective clothing.

#### Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

#### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

### General hygiene considerations

When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

Amber Liquid

#### Physical state

Liquid.

#### Form

Liquid.

#### Color

Amber

### Odor

Aromatic solvent

### Odor threshold

Not available.

### pH

4 - 5 (as 5% emulsion)

### Melting point/freezing point

-47 °F (-44 °C) estimated / < 32 °F (< 0 °C)

### Initial boiling point and boiling range

325 °F (163 °C)

### Flash point

103 °F (39 °C) Closed Cup

### Evaporation rate

0.12 as compared to -Butanol

### Flammability (solid, gas)

Not applicable.

### Upper/lower flammability or explosive limits

**Flammability limit - lower (%)** 0.9 %

**Flammability limit - upper (%)** 6.4 %

**Explosive limit - lower (%)** Not available.

**Explosive limit - upper (%)** Not available.

### Vapor pressure

3.80E+00 mm Hg

### Vapor density

Heavier than air

### Relative density

1.04 g/cm<sup>3</sup>

### Solubility(ies)

**Solubility (water)** Emulsifies in water

**Solubility (other)** Soluble in aromatic hydrocarbons and ketones

### Partition coefficient (n-octanol/water)

2.81

<b>Auto-ignition temperature</b>	932 °F (500 °C) estimated
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Bulk density</b>	8.68 lb/gal
<b>Molecular formula</b>	C11-H12-Cl2-O3
<b>Molecular weight</b>	263.12 g/mol
<b>Specific gravity</b>	1.155 estimated

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents. Halogens. Strong acids. Alkaline compounds.
<b>Hazardous decomposition products</b>	This product may emit hazardous fumes of hydrogen chloride, carbon oxides, and unidentified organic compounds when it is heated excessively or burned. WEAR SELF-CONTAINED BREATHING APPARATUS when these conditions are present. Emits hazardous fumes and smoke of unknown composition when heated to decomposition or burned.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	May cause damage to organs through prolonged or repeated exposure by inhalation. Prolonged inhalation may be harmful.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	Harmful if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

### Symptoms related to the physical, chemical and toxicological characteristics

Nausea, headaches, eye irritation. The presence of petroleum distillates may lead to central nervous system (CNS) depression, drying of the skin, dermatitis. Aspiration (breathing) of vomitus after swallowing may lead to aspiration pneumonitis. Direct contact with eyes may cause temporary irritation.

Preexisting neurological problems may be aggravated by exposure to this product. Near fatal exposures may result in congestive effects to a wide variety of organs based on the presence of petroleum distillates.

### Information on toxicological effects

**Acute toxicity** May be fatal if swallowed and enters airways. No information is available for this product. The information given below is for the active ingredient.

Product	Species	Test Results
ALCO™ CITRUS FIX™		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 2000 mg/kg (Toxicity Category III)
<b>Inhalation</b>		
LC50	Rat	> 4.97 mg/l (Toxicity Category IV)
<b>Oral</b>		
LD50	Rat	1250 mg/kg (Toxicity Category III)

**Skin corrosion/irritation** Prolonged skin contact may cause temporary irritation.

**Serious eye damage/eye irritation** Direct contact with eyes may cause temporary irritation.

### Respiratory or skin sensitization

**Respiratory sensitization** Not a respiratory sensitizer.

<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	May cause genetic defects.
<b>Carcinogenicity</b>	Risk of cancer cannot be excluded with prolonged exposure. EPA lists 2,4-D acid, an impurity in 2,4-D Isopropyl Ester, as being in category D, not classifiable as a Human Carcinogen. IARC lists 2,4-D acid as being in category 2B. Care should be taken when handling this product.

#### IARC Monographs. Overall Evaluation of Carcinogenicity

2,4-Dichlorophenoxyacetic Acid [2,4-D acid] (CAS 94-75-7)	2B Possibly carcinogenic to humans.
BENZENE,1-METHYLETHYL- (CAS 98-82-8)	2B Possibly carcinogenic to humans.
Xylene (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

<b>Reproductive toxicity</b>	Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Causes damage to organs through prolonged or repeated exposure.
<b>Aspiration hazard</b>	May be fatal if swallowed and enters airways.
<b>Chronic effects</b>	Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

## 12. Ecological information

**Ecotoxicity** Very toxic to aquatic life with long lasting effects.

Components	Species		Test Results
<b>BENZENE,1-METHYLETHYL- (CAS 98-82-8)</b>			
<b>Aquatic</b>			
Crustacea	EC50	Brine shrimp (Artemia sp.)	3.55 - 11.29 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	2.7 mg/l, 96 hours
Xylene (CAS 1330-20-7)			
<b>Aquatic</b>			
Fish	LC50	Bluegill (Lepomis macrochirus)	7.711 - 9.591 mg/l, 96 hours
Impurities	Species		Test Results
<b>2,4-Dichlorophenoxyacetic Acid [2,4-D acid] (CAS 94-75-7)</b>			
<b>Aquatic</b>			
Crustacea	EC50	Water flea (Daphnia pulex)	2.4 - 4.3 mg/l, 48 hours
Fish	LC50	Fish (Labeo boga)	3.8 mg/l, 96 hours

**Persistence and degradability** No data is available on the degradability of this product.

#### Bioaccumulative potential

##### Partition coefficient n-octanol / water (log Kow)

2, 4-Dichlorophenoxy)acetic acid, isopropyl ester	2.4
BENZENE,1-METHYLETHYL-	3.66
Xylene	3.12 - 3.2

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**US RCRA Hazardous Waste U List: Reference**

2,4-Dichlorophenoxyacetic Acid [2,4-D acid] (CAS 94-75-7) U240

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Triple rinse (or equivalent).

**14. Transport information****DOT**

**UN number** UN1993  
**UN proper shipping name** Flammable liquids, n.o.s. (Petroleum distillates)  
**Transport hazard class(es)**  
**Class** 3  
**Subsidiary risk** -  
**Label(s)** 3  
**Packing group** III  
**Environmental hazards**  
**Marine pollutant** Yes  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.  
**Special provisions** B1, B52, IB3, T4, TP1, TP29  
**Packaging exceptions** 150  
**Packaging non bulk** 203  
**Packaging bulk** 242

**IATA**

**UN number** UN1993  
**UN proper shipping name** Flammable liquids, n.o.s. (Petroleum distillates)  
**Transport hazard class(es)**  
**Class** 3  
**Subsidiary risk** -  
**Label(s)** 3  
**Packing group** III  
**Environmental hazards** No.  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.  
**Other information**  
**Passenger and cargo aircraft** Allowed.  
**Cargo aircraft only** Allowed.

**IMDG**

**UN number** UN1993  
**UN proper shipping name** Flammable liquids, n.o.s. (Petroleum distillates)  
**Transport hazard class(es)**  
**Class** 3  
**Subsidiary risk** -  
**Label(s)** 3  
**Packing group** III  
**Environmental hazards**  
**Marine pollutant** Yes  
**EmS** Not available.  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not established.



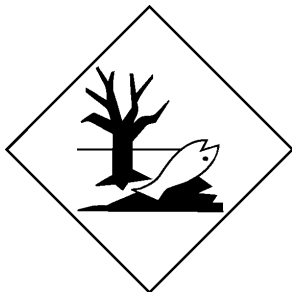
DOT



IATA; IMDG



Marine pollutant



General information

DOT Regulated Marine Pollutant. IMDG Regulated Marine Pollutant.

## 15. Regulatory information

### US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. This product is registered under EPA/FIFRA Regulations. It is a violation of Federal Law to use this product in any manner inconsistent with its labeling. Read and follow all label directions. This product is excluded from listing requirements under EPA/TSCA.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

2, 4-Dichlorophenoxy)acetic acid, isopropyl ester (CAS 94-11-1)	Listed.
2,4-Dichlorophenoxyacetic Acid [2,4-D acid] (CAS 94-75-7)	Listed.
BENZENE,1-METHYLETHYL- (CAS 98-82-8)	Listed.
Xylene (CAS 1330-20-7)	Listed.

#### SARA 304 Emergency release notification

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

##### Hazard categories

Immediate Hazard - Yes  
Delayed Hazard - Yes  
Fire Hazard - Yes  
Pressure Hazard - No  
Reactivity Hazard - No

##### SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
2, 4-Dichlorophenoxy)acetic acid, isopropyl ester	94-11-1	45
1,2, 4-Trimethylbenzene	95-63-6	10 - < 20
Xylene	1330-20-7	1 - < 3
BENZENE,1-METHYLETHYL-	98-82-8	< 1
2,4-Dichlorophenoxyacetic Acid [2,4-D acid]	94-75-7	<0.8

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

2, 4-Dichlorophenoxy)acetic acid, isopropyl ester (CAS 94-11-1)  
2,4-Dichlorophenoxyacetic Acid [2,4-D acid] (CAS 94-75-7)  
BENZENE,1-METHYLETHYL- (CAS 98-82-8)  
Xylene (CAS 1330-20-7)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) 0.07 mg/l  
0.07 mg/l

US state regulations WARNING: This product contains a chemical known to the State of California to cause cancer.

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

1,2, 4-Trimethylbenzene (CAS 95-63-6)  
Aromatic Petroleum Distillates (CAS 64742-95-6)  
BENZENE,1-METHYLETHYL- (CAS 98-82-8)  
Xylene (CAS 1330-20-7)

US. Massachusetts RTK - Substance List

1,2, 4-Trimethylbenzene (CAS 95-63-6)  
2, 4-Dichlorophenoxy)acetic acid, isopropyl ester (CAS 94-11-1)  
2,4-Dichlorophenoxyacetic Acid [2,4-D acid] (CAS 94-75-7)  
BENZENE,1-METHYLETHYL- (CAS 98-82-8)  
Xylene (CAS 1330-20-7)

US. New Jersey Worker and Community Right-to-Know Act

1,2, 4-Trimethylbenzene (CAS 95-63-6)  
2, 4-Dichlorophenoxy)acetic acid, isopropyl ester (CAS 94-11-1)  
2,4-Dichlorophenoxyacetic Acid [2,4-D acid] (CAS 94-75-7)  
BENZENE,1-METHYLETHYL- (CAS 98-82-8)  
Xylene (CAS 1330-20-7)

US. Pennsylvania Worker and Community Right-to-Know Law

1,2, 4-Trimethylbenzene (CAS 95-63-6)  
2, 4-Dichlorophenoxy)acetic acid, isopropyl ester (CAS 94-11-1)  
2,4-Dichlorophenoxyacetic Acid [2,4-D acid] (CAS 94-75-7)  
BENZENE,1-METHYLETHYL- (CAS 98-82-8)  
Xylene (CAS 1330-20-7)

US. Rhode Island RTK

1,2, 4-Trimethylbenzene (CAS 95-63-6)  
2, 4-Dichlorophenoxy)acetic acid, isopropyl ester (CAS 94-11-1)  
2,4-Dichlorophenoxyacetic Acid [2,4-D acid] (CAS 94-75-7)  
BENZENE,1-METHYLETHYL- (CAS 98-82-8)  
Xylene (CAS 1330-20-7)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

BENZENE,1-METHYLETHYL- (CAS 98-82-8) Listed: April 6, 2010

## International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

**Issue date** 05-08-2015

**References** ACGIH®: American Conference of Governmental Industrial Hygienists  
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act  
EPA: Environmental Protection Agency  
FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act  
IARC: International Agency for Research on Cancer  
NTP: National Toxicology Program  
OSHA: Occupational Safety and Health Agency  
SARA: Superfund Amendments and Reauthorization Act  
TSCA: Toxic Substances Control Act  
DOT: Department of Transportation  
IMDG: International Maritime Dangerous Goods  
IATA: International Air Transport Association

**Version #** 01

**Further information** Not available.

**HMIS® ratings** Health: 2\*  
Flammability: 3  
Physical hazard: 0

**NFPA ratings** Health: 2  
Flammability: 3  
Instability: 0

**Disclaimer** This information is provided for the limited guidance to the user. While AMVAC believes that the information is, as of the date hereof, reliable, it is the user's responsibility to determine the suitability of the information for its purposes. The user is advised not to construe the information as absolutely complete since additional information may be necessary or desirable when particular, exceptional, or variable conditions or circumstances exist (like combinations with other materials), or because of applicable regulations. No express or implied warranty of merchantability or fitness for a particular purpose or otherwise is made hereunder with respect to the information or the product to which the information relates.

©2015 AMVAC Chemical Corporation. All Rights Reserved. AMVAC, Alco, Citrus Fix, and the Beaker Logo are trademarks owned by AMVAC Chemical Corporation. Chemtrec is a trademark of the American Chemistry Council, Inc. HMIS is a trademark of the American Coatings Association. NFPA is a trademark of the National Fire Protection Association, Inc. ACGIH is a trademark of the American Conference of Governmental Industrial Hygienists.