

1. Identification

| | | |
|---|--|-------------------|
| Product identifier | DACTHAL W-75 Herbicide | |
| Other means of identification | | |
| SDS number | 291 | |
| Product registration number | 5481-490; 5481-491 | |
| Recommended use | Agricultural Herbicide. | |
| Recommended restrictions | Keep out of the Reach of Children! | |
| EPA Registration number | EPA: 5481-490; 5481-491 | |
| Manufacturer/Importer/Supplier/Distributor information | | |
| Manufacturer | | |
| Company name | AMVAC Chemical Corporation | |
| Address | 4695 MacArthur Court Suite 1200 Newport Beach, CA 92660 United States | |
| Telephone | AMVAC Chemical Corp | 949-260-1200 |
| | AMVAC Chemical Corp | 949-260-6270(FAX) |
| | Product Use | 888-462-6822 |
| Website | www.amvac.com | |
| E-mail | CustServ@amvac.com | |
| Emergency phone number | Medical | 888-681-4261 |
| | CHEMTREC® (USA+Canada) | 800-424-9300 |
| | CHEMTREC® (Outside USA) | +1-703-527-3887 |

2. Hazard(s) identification

| | | |
|------------------------------|--|------------|
| Physical hazards | Not classified. | |
| Health hazards | Not classified. | |
| Environmental hazards | Hazardous to the aquatic environment, acute hazard | Category 3 |
| | Hazardous to the aquatic environment, long-term hazard | Category 2 |
| OSHA defined hazards | Not classified. | |

Label elements



| | |
|--|---|
| Signal word | None. |
| Hazard statement | Harmful to aquatic life. Toxic to aquatic life with long lasting effects. |
| Precautionary statement | |
| Prevention | Avoid release to the environment. |
| Response | Collect spillage. |
| Storage | Store away from incompatible materials. |
| Disposal | Dispose of contents/container in accordance with local/regional/national/international regulations. |
| Hazard(s) not otherwise classified (HNOC) | None known. |

Supplemental information

This 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 in section 15. The pesticide label also includes other important information, including directions for use.

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|--------------------|--|------------|----|
| Chlorthal-dimethyl | 1,4-Dimethyl 2,3,5,6-tetrachlorobenzene-1,4-dicarboxylate DCPA DACTHAL | 1861-32-1 | 75 |

4. First-aid measures

Inhalation

Avoid breathing dust. Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact

Wash off immediately with soap and plenty of water. Take off contaminated clothing and wash before reuse. Get medical attention if irritation develops and persists.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. Have person sip a glass of water if able to swallow. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Direct contact with eyes may cause temporary irritation.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

General information

If exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂). Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media

None known.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

Use standard firefighting procedures and consider the hazards of other involved materials.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Ensure adequate ventilation. Keep upwind. Wear appropriate protective equipment and clothing during clean-up. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Avoid dust formation. Vacuum up or use a scoop to transfer the spilled material to containers for reuse or disposal. Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for reuse.

Environmental precautions

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

Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Wear appropriate personal protective equipment. When using, do not eat, drink or smoke. Wash thoroughly after handling. Avoid release to the environment.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-3 Permissible Exposure Limits (PEL) for Mineral Dusts (29 CFR 1910.1000)

| Additional components | Type | Value | Form |
|----------------------------|------|----------|----------------------|
| Nuisance Dust (CAS SEQ250) | TWA | 5 mg/m3 | Respirable fraction. |
| | | 15 mg/m3 | Total dust. |

US. ACGIH Threshold Limit Values (TLV)

| Impurities | Type | Value |
|----------------------------------|------|-------------|
| Hexachlorobenzene (CAS 118-74-1) | TWA | 0.002 mg/m3 |

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines

US - California OELs: Skin designation

Hexachlorobenzene (CAS 118-74-1) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Hexachlorobenzene (CAS 118-74-1) Skin designation applies.

US ACGIH Threshold Limit Values: Skin designation

Hexachlorobenzene (CAS 118-74-1) Danger of cutaneous absorption

Appropriate engineering controls

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. Provide eyewash station.

Individual protection measures, such as personal protective equipment

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

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Long-sleeved shirt and long pants or coveralls, socks and closed toe shoes are required.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Thermal hazards Not applicable.

General hygiene considerations

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. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state Solid.
Form Powder.
Color Off-white (gray) to tan.

Odor Slightly aromatic odor.

Odor threshold Not available

pH Not available.

Melting point/freezing point 312.8 °F (156 °C)

Initial boiling point and boiling range A.I. decomposes at 360-370 °C.

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Explosive limit - lower (%) Not available.

| | |
|------------------------------------|--|
| Explosive limit - upper (%) | Not available. |
| Vapor pressure | Not available. |
| Vapor density | Heavier than air |
| Relative density | Not available. |
| Solubility(ies) | |
| Solubility (water) | Disperses |
| Solubility (solvents) | The active ingredient in this product is soluble in aromatic hydrocarbons, chlorinated hydrocarbons, ketones, and esters |
| Auto-ignition temperature | Not available. |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| Other information | |
| Bulk density | 0.25 g/cm ³ |
| Percent volatile | Not applicable |
| pH in aqueous solution | 7 - 8 |

10. Stability and reactivity

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|---|--|
| Reactivity | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| Chemical stability | Material is stable under normal conditions. |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | Contact with incompatible materials. |
| Incompatible materials | Strong acids. Strong bases. |
| Hazardous decomposition products | No hazardous decomposition products are known. 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. |

11. Toxicological information

Information on likely routes of exposure

| | |
|---------------------|--|
| Inhalation | Dust may irritate respiratory system. |
| Skin contact | Prolonged skin contact may cause temporary irritation. |
| Eye contact | Direct contact with eyes may cause temporary irritation. |
| Ingestion | May cause discomfort if swallowed. |

| | |
|---|--|
| Symptoms related to the physical, chemical and toxicological characteristics | Direct contact with eyes may cause temporary irritation. |
|---|--|

Information on toxicological effects

| | |
|-----------------------|---|
| Acute toxicity | Based on available data, the classification criteria are not met. |
|-----------------------|---|

| Product | Species | Test Results |
|--|--|---------------|
| DACTHAL W-75 Herbicide | | |
| acute | | |
| dermal | | |
| LD50 | Rabbit | > 10000 mg/kg |
| inhalation | | |
| <i>Dust</i> | | |
| LC50 | Rat | > 5.7 mg/L |
| oral | | |
| LD50 | Rat | > 10000 mg/kg |
| 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. | |
| Skin sensitization | Not a sensitizer. | |

| | |
|---|--|
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |
| Carcinogenicity | A micro-contaminant in Dacthal, Hexachlorobenzene (HCB), has been found to be carcinogenic in several studies conducted for IARC and NTP. Chlorthal-Dimethyl has been classified by EPA as a Group C, possible human carcinogen. |
| IARC Monographs. Overall Evaluation of Carcinogenicity | |
| Hexachlorobenzene (CAS 118-74-1) | 2B Possibly carcinogenic to humans. |
| OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) | |
| Not listed. | |
| US. National Toxicology Program (NTP) Report on Carcinogens | |
| Hexachlorobenzene (CAS 118-74-1) | Reasonably Anticipated to be a Human Carcinogen. |
| Reproductive toxicity | This product is not expected to cause reproductive or developmental effects. |
| Specific target organ toxicity - single exposure | Not classified. |
| Specific target organ toxicity - repeated exposure | Not classified. |
| Aspiration hazard | Not an aspiration hazard. |
| Chronic effects | Prolonged inhalation may be harmful. |

12. Ecological information

Ecotoxicity Harmful to aquatic life. Toxic to aquatic life with long lasting effects.

| Components | Species | Test Results |
|------------------------------------|---------|---|
| Chlorthal-dimethyl (CAS 1861-32-1) | | |
| Aquatic | | |
| <i>Acute</i> | | |
| Crustacea | EC50 | Water flea (Daphnia magna) 20 - 35 mg/l, 48 hours |
| Fish | LC50 | Bluegill (Lepomis macrochirus) > 100 mg/l, 96 hours |
| <i>Chronic</i> | | |
| Crustacea | NOEC | Daphnia magna 0.246 mg/l, 21 d |
| Fish | NOEC | Oncorhynchus mykiss 0.098 mg/l, 28 d |

Persistence and degradability Active Ingredient (a.i.): Chlorthal-Dimethyl is generally not persistent. Laboratory studies indicate a half-life of 18-37 days.

Bioaccumulative potential Active ingredient (a.i.): The octanol water partitioning ratio and fish studies indicate that the compound is capable of bioaccumulation.

Partition coefficient n-octanol / water (log Kow)

Chlorthal-dimethyl 4.28, @ 25 °C

Mobility in soil Active Ingredient (a.i.): Chlorthal-Dimethyl itself is not prone to leaching, Koc>1000.

Other adverse effects Tetrachloroterephthalic acid, a breakdown product of Chlorthal-Dimethyl, is known to leach through soil as a result of agricultural and turf uses and has been found in groundwater which may be used for drinking water. Users of formulated products are advised not to apply Chlorthal-Dimethyl to sand and loamy sand soils where the water table (groundwater) is close to the surface and where these soils are very permeable, i.e., well drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater used for drinking water.

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.

Waste from residues / unused products Dispose of container and residues in accordance with all applicable 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 methods/information).

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.

14. Transport information

DOT

Not regulated as dangerous goods.

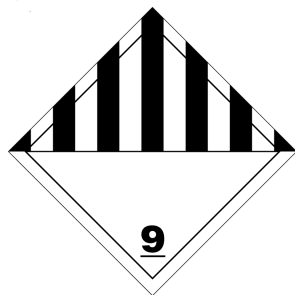
IATA

UN number UN3077
UN proper shipping name Environmentally hazardous substance, solid, n.o.s. (Chlorthal-dimethyl)
Transport hazard class(es)
Class 9
Subsidiary risk -
Packing group III
Environmental hazards Yes
ERG Code 9L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Other information
Passenger and cargo aircraft Allowed with restrictions.
Cargo aircraft only Allowed with restrictions.
Read safety instructions, SDS and emergency procedures before handling.

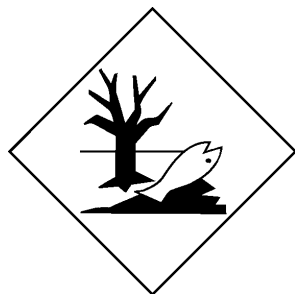
IMDG

UN number UN3077
UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Chlorthal-dimethyl), MARINE POLLUTANT
Transport hazard class(es)
Class 9
Subsidiary risk -
Packing group III
Environmental hazards
Marine pollutant Yes
EmS F-A, S-F
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 applicable.

IATA; IMDG



Marine pollutant



General information

IMDG Regulated Marine Pollutant.

15. Regulatory information

US federal regulations

This product is not 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.

This 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.

CAUTION! Avoid contact with eyes, skin, and clothing. Causes moderate eye irritation. Wash thoroughly with soap and water after handling.

Do not apply directly to water, or to areas where surface water is present (except for application to cranberry bogs) or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

Toxic Substances Control Act (TSCA)

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Hexachlorobenzene (CAS 118-74-1) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

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

Hexachlorobenzene (CAS 118-74-1)

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

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

California Proposition 65



WARNING: This product can expose you to chemicals including Hexachlorobenzene, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

Hexachlorobenzene (CAS 118-74-1) Listed: October 1, 1987

California Proposition 65 - CRT: Listed date/Developmental toxin

Hexachlorobenzene (CAS 118-74-1) Listed: January 1, 1989

International Inventories

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|----------------------|-------------------------------------|------------------------|
| Canada | Domestic Substances List (DSL) | No |
| Canada | Non-Domestic Substances List (NDSL) | No |

| 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 Jul-10-2015

Revision date Apr-28-2023

Version # 5.1

HMIS® ratings Health: 0
Flammability: 0
Physical hazard: 0

NFPA ratings Health: 0
Flammability: 0
Instability: 0

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Revision information First-aid measures: General information
Accidental release measures: Methods and materials for containment and cleaning up
Exposure controls/personal protection: Other
Other information, including date of preparation or last revision: Disclaimer
GHS: Classification