

1. Product and Company Identification

Material name DACTHAL W-75 Herbicide
Version # 01
Issue date 07-16-2015
CAS # Mixture
MSDS Number 291
EPA Registration number EPA: 5481-490; 5481-491
Pest Control Products Act (Canada) WHMIS: 8963
Manufacturer information AMVAC Chemical Corporation
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 Medical 888-681-4261
 Product Use 888-462-6822

2. Hazards Identification

Emergency overview CAUTION
 Keep out of Reach of Children.
 Harmful if swallowed.
 Avoid contact with the eyes and skin.

Potential health effects
Routes of exposure Inhalation. Ingestion. Skin contact. Eye contact.
Eyes Contact with eyes may cause irritation. Avoid contact with eyes.
Skin May cause skin irritation. Avoid contact with the skin.
Inhalation Dusts of this product may cause irritation of the nose, throat, and respiratory tract. Prolonged inhalation may be harmful.
Ingestion Irritating. May cause nausea, stomach pain and vomiting.
Chronic effects Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Signs and symptoms Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
Potential environmental effects May cause long-term adverse effects in the environment.

3. Composition / Information on Ingredients

Non-hazardous components	CAS #	Percent
DCPA (Dimethyl tetracloroterephthalate)	1861-32-1	75
Additional components	CAS #	Percent
Inert Ingredients (May contain clay which may contain >0.1% crystalline silica)	N/A	25

4. First Aid Measures

First aid procedures
Inhalation Avoid breathing dust. Move to fresh air. Get medical attention, if needed.
Skin contact Remove and isolate contaminated clothing and shoes. Wash off immediately with soap and plenty of water. Get medical attention if irritation develops and persists.

Eye contact	Flush eyes immediately with large amounts of water. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Rinse mouth thoroughly. Have person sip a glass of water if able to swallow. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Never give anything by mouth to a victim who is unconscious or is having convulsions.
Notes to physician	Treat symptomatically.
General advice	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.

5. Fire Fighting Measures

Flammable properties	Not flammable by WHMIS criteria.
Extinguishing media	
Suitable extinguishing media	Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media	None known.
Protection of firefighters	
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Fire fighting equipment/instructions	Use standard firefighting procedures and consider the hazards of other involved materials.
Explosion data	
Sensitivity to static discharge	None known.
Sensitivity to mechanical impact	None known.
Hazardous combustion products	This product will emit hazardous fumes and smoke of unknown composition when heated excessively or burned.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. For personal protection, see section 8 of the MSDS.
Environmental precautions	Do not contaminate water.
Methods for containment	Stop leak if you can do so without risk. Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Wear appropriate protective equipment and clothing during clean-up. Should not be released into the environment. Dike far ahead of spill for later disposal. Avoid the generation of dusts during clean-up. Clean up in accordance with all applicable regulations. For waste disposal, see section 13 of the SDS.
Other information	Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling	Minimize dust generation and accumulation. Do not breathe dust. Avoid contact with eyes, skin, and clothing. When using do not eat or drink. Do not use in areas without adequate ventilation. Wash thoroughly after handling. Avoid release to the environment.
Storage	Store locked up. Store in a cool, dry place out of direct sunlight. Store in a closed container away from incompatible materials. Keep out of the reach of children.

8. Exposure Controls / Personal Protection

Occupational exposure limits			
US. ACGIH Threshold Limit Values			
Additional components	Type	Value	Form
Hexachlorobenzene (CAS 118-74-1)	TWA	0.002 mg/m3	

US. ACGIH Threshold Limit Values

Additional components	Type	Value	Form
free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Additional components	Type	Value	Form
Hexachlorobenzene (CAS 118-74-1)	TWA	0.002 mg/m3	
Nuisance Dust	TWA	3 mg/m3 10 mg/m3	Respirable particles. Total particulate.
free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable particles.

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Additional components	Type	Value	Form
Hexachlorobenzene (CAS 118-74-1)	TWA	0.002 mg/m3	
Nuisance Dust	TWA	3 mg/m3 10 mg/m3	Respirable fraction. Total dust.
free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Additional components	Type	Value	Form
Hexachlorobenzene (CAS 118-74-1)	TWA	0.002 mg/m3	
free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	
DCEP (Dimethyl tetrachloroterephthalate) (CAS 1861-32-1)	TWA	5 mg/m3	
Additional components	Type	Value	Form
Hexachlorobenzene (CAS 118-74-1)	TWA	0.002 mg/m3	
Nuisance Dust	TWA	3 mg/m3 10 mg/m3	Respirable particles. Inhalable
free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable.

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Additional components	Type	Value	Form
Hexachlorobenzene (CAS 118-74-1)	TWA	0.025 mg/m3	
Nuisance Dust	TWA	10 mg/m3	Total dust.
free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable dust.

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

Additional components	Type	Value	Form
Nuisance Dust	PEL	5 mg/m3 15 mg/m3	Respirable fraction. Total dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Additional components	Type	Value	Form
Nuisance Dust	TWA	5 mg/m3 15 mg/m3	Respirable fraction. Total dust.
free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	TWA	0.3 mg/m3 0.1 mg/m3	Total dust. Respirable.

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

Exposure guidelines**Canada - Alberta OELs: Skin designation**

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

Canada - British Columbia OELs: Skin designation

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

Canada - Manitoba OELs: Skin designation

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

Canada - Ontario OELs: Skin designation

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

Canada - Quebec OELs: Skin designation

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

Canada - Saskatchewan OELs: Skin designation

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

US ACGIH Threshold Limit Values: Skin designation

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

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. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles).

Skin protection

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

Respiratory protection

Chemical respirator with organic dust cartridge. (See label for more complete instructions).

Hand protection

Wear protective gloves.

9. Physical & Chemical Properties**Appearance**

Fine off-white (gray) to tan powder

Physical state

Solid.

Form

Powder.

Color

Off-white (gray) to tan

Odor

Slightly aromatic odor

Odor threshold

Not available

pH

Not available.

Vapor pressure

2.10E-01 mPa (2.5 x 10⁻⁶ torr) @ 25°C (gas saturation method)

Vapor density

Heavier than air

Boiling point

Decomposes at 360-370°C

Melting point/Freezing point

313 °F (156 °C) (313°F) (based on a.i.) / 311 °F (155 °C) estimated

Solubility (water)

Disperses

Specific gravity

Not available.

Relative density

Not available.

Flash point

Not available.

Flammability limits in air, upper, % by volume

Not available.

Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	Not available.
Evaporation rate	Not applicable
Percent volatile	Not applicable
Partition coefficient (n-octanol/water)	4.28 @ 25°C (a.i.)
Bulk density	0.25 g/cm ³
Other data	
pH in aqueous solution	7 - 8

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong acids. Strong bases.
Hazardous decomposition products	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.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Product	Species	Test Results
DACTHAL W-75 Herbicide		
<u>acute</u>		
dermal		
LD50	rabbit	> 10000 mg/kg Toxicity Category IV
inhalation		
LC50	rat	> 5.7 mg/L Toxicity Category IV
oral		
LD50	rat	> 10000 mg/kg Toxicity Category IV

Acute effects

Sensitization Not a sensitizer.

Chronic effects Not expected to be hazardous by WHMIS criteria. Prolonged inhalation may be harmful.

Carcinogenicity Dacthal has been classified by EPA as a Group C, possible human carcinogen.

ACGIH Carcinogens

free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	A2 Suspected human carcinogen.
Hexachlorobenzene (CAS 118-74-1)	A3 Confirmed animal carcinogen with unknown relevance to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	1 Carcinogenic to humans.
Hexachlorobenzene (CAS 118-74-1)	2B Possibly carcinogenic to humans.

Skin corrosion/irritation Non irritating to slightly irritating to skin.

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

Mutagenicity Not available.

Reproductive effects This product is not expected to cause reproductive or developmental effects.

Teratogenicity Not expected to be hazardous by WHMIS criteria.

Synergistic materials Not available.

12. Ecological Information

Ecotoxicological data

Components	Species		Test Results
DCPA (Dimethyl tetrachloroterephthalate) (CAS 1861-32-1)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	20 - 35 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	> 100 mg/l, 96 hours
Ecotoxicity	Contains a substance which causes risk of hazardous effects to the environment.		
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.		
Aquatic toxicity	Not available.		
Persistence and degradability	Not available.		
Partition coefficient			
DACTHAL W-75 Herbicide	4.28, @ 25°C (a.i.)		

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. Dispose in accordance with all applicable regulations.
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.

14. Transport Information

TDG	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.

15. Regulatory Information

Canadian regulations	This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR. CANADIAN REGULATIONS: This product is registered under the Pest Control Product Act of Canada. It is a violation of Canadian Law to use this product in any manner inconsistent with its labeling. Read and follow all label directions. This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.
WHMIS status	Controlled
WHMIS classification	D2B - Other Toxic Effects-TOXIC
WHMIS labeling	



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
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

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

Recommended restrictions

Keep out of the Reach of Children!

HMIS® ratings

Health: 2*
Flammability: 0
Physical hazard: 0

NFPA ratings

Health: 2
Flammability: 0
Instability: 0

Disclaimer

AMVAC Chemical Corporation cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. 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.

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Prepared by

Not available.

This data sheet contains changes from the previous version in section(s):

Product and Company Identification: Synonyms
Composition / Information on Ingredients: Potential Compounds Formed
Physical & Chemical Properties: Multiple Properties
Toxicological Information: Toxicological Property Data
Ecological Information: Ecotox Property Data
Transport Information: Material Transportation Information
HazReg Data: International Inventories
GHS: Classification