

1. Identification

Product identifier	Scepter T&O 70 WDG Herbicide	
Other means of identification		
SDS number	561	
Product registration number	5481-613	
Recommended use	Herbicide. For use on established lawns of bermuda grass, St. Augustine grass, Centipede grass, and Zoysia grass. For use on golf courses, sod farms, commercial and residential turf, and for use around selected landscape ornamentals.	
Recommended restrictions	No other uses are advised. Keep out of the Reach of Children!	
EPA Registration number	EPA: 5481-613	
Manufacturer/Importer/Supplier/Distributor information		
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, long-term hazard	Category 1
OSHA defined hazards	Not classified.	
Label elements		



Signal word	Warning	
Hazard statement	Very 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.

This product is not combustible in the form in which it is shipped by the manufacturer, but may form a combustible dust through downstream activities (e.g. grinding, pulverizing) that reduce its particle size.

3. Composition/information on ingredients**Mixtures**

Chemical name	Common name and synonyms	CAS number	%
Imazaquin		81335-37-7	70
Kaolin		1332-58-7	15-30

Impurities

Chemical name	Common name and synonyms	CAS number	%
Crystalline Silica		14808-60-7	< 0.1

4. First-aid measures**Inhalation**

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

Skin contact

Remove contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center for treatment advice.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a physician or poison control center for treatment advice.

Ingestion

Rinse mouth. Drink plenty of water. 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

Treat symptomatically.

General information

Take off all contaminated clothing immediately. If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting measures**Suitable extinguishing media**

Foam. Dry chemical powder. Carbon dioxide (CO2). Water spray.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

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

Evacuate area of all unnecessary personnel. Move containers from fire area if you can do so without risk. Dike and collect extinguishing water. Do not allow contaminated water to enter drains or waterways. Dusty conditions may ignite explosively in the presence of an ignition source, causing a flash fire.

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 upwind. Ensure adequate ventilation. Wear appropriate protective equipment and clothing during clean-up. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up

Dike the spilled material, where this is possible. Prevent product from entering drains. Shovel up and place in a container for salvage or disposal. Spilled substance should be recovered whenever possible and applied according to label rates. Following product recovery, decontaminate the surface and flush area with water. Collect any wash water for approved disposal.

Environmental precautions

Do not discharge into the subsoil/soil. Do not discharge into drains, water courses or onto the ground. Contain contaminated water/firefighting water.

7. Handling and storage**Precautions for safe handling**

Pesticide Applicators & Workers: Refer to the Product Label for Handling Instructions.

Handling and processing operations should be conducted in accordance with 'best practices' (e.g. NFPA-654). Provide adequate ventilation. Wear appropriate personal protective equipment. Handle and open container with care. Avoid contact with eyes, skin, and clothing. Avoid dust formation. Keep away from sources of ignition - No smoking. Ground container and transfer equipment to eliminate static electric sparks. Avoid release to the environment. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Do not store at temperatures above 40°C (104°F). Store away from incompatible materials (see Section 10 of the SDS). Prevent contamination with other crop protection products, fertilizers, food, and feed.

8. Exposure controls/personal protection**Occupational exposure limits**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

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

Components	Type	Value	Form
Kaolin (CAS 1332-58-7)	PEL	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.
Impurities	Type	Value	Form
Crystalline Silica (CAS 14808-60-7)	PEL	0.05 mg/m ³	Respirable dust.

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

Components	Type	Value	Form
Kaolin (CAS 1332-58-7)	TWA	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.
Impurities	Type	Value	Form
Crystalline Silica (CAS 14808-60-7)	TWA	0.1 mg/m ³	Respirable.
		2.4 mppcf	Respirable.

US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value	Form
Kaolin (CAS 1332-58-7)	TWA	2 mg/m ³	Respirable fraction.
Impurities	Type	Value	Form
Crystalline Silica (CAS 14808-60-7)	TWA	0.025 mg/m ³	Respirable fraction.

NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended

Impurities	Type	Value
Crystalline Silica (CAS 14808-60-7)	IDLH	50 mg/m ³

US. NIOSH: Pocket Guide to Chemical Hazards Recommended Exposure Limits (REL)

Components	Type	Value	Form
Kaolin (CAS 1332-58-7)	TWA	5 mg/m ³	Respirable.
		10 mg/m ³	Total
Impurities	Type	Value	Form
Crystalline Silica (CAS 14808-60-7)	TWA	0.05 mg/m ³	Respirable dust.

Biological limit values

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

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. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

Individual protection measures, such as personal protective equipment

Eye/face protection If contact is likely, safety glasses with side shields are recommended.

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 In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Not available.

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.

9. Physical and chemical properties

Appearance

Physical state Solid.

Form Dry flowable water dispersible granules.

Color Off-white to beige.

Odor Nutty; Faint odor.

Odor threshold Not available.

pH 3 - 5 (0.1%(m), approx 20°C)

Melting point/freezing point 426.2 - 431.6 °F (219 - 222 °C) (a.i.)

Initial boiling point and boiling range Has not been tested

Flash point Not applicable (solid)

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Explosive limit - lower (%) No hazard is expected as long as the product is used appropriately and in accordance with the intended use.

Explosive limit - upper (%) No hazard is expected as long as the product is used appropriately and in accordance with the intended use.

Vapor pressure Negligible

Vapor density Not available.

Relative density Not available.

Solubility(ies)

Solubility (water) Dispersible

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature >572 °F (>300 °C) (Imazaquin)

Decomposition temperature 383 °F (195 °C) (Imazaquin)

Viscosity Not available.

Other information The data presented in this section are typical values and should not be construed as a specification.

Bulk density 481 - 609 kg/m³ (approx)
4.67 lb/gal (US, approx)

Chemical family Imidazole derivative

Dust explosion properties

Kst <200 bar.m/s

St class 1

Flammability

Based on the structure or composition there is no indication of flammability

10. Stability and reactivity**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

Avoid conditions which create dust. Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the decomposition temperature. Avoid electro-static discharge. Contact with incompatible materials.

Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases.

Hazardous decomposition products

No hazardous decomposition products are known. Emits hazardous fumes and smoke of unknown composition when heated to decomposition or burned.

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
Scepter T&O 70 WDG Herbicide		
Acute		
Dermal		
<i>Solid</i>		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
<i>Dust</i>		
LC50	Rat	> 5.7 mg/l, 4 h (Imazaquin only)
Oral		
<i>Solid</i>		
LD50	Rat	> 6598 mg/kg (male/female)

Skin corrosion/irritation

Prolonged skin contact may cause temporary irritation.

Irritation Corrosion - Skin

Scepter T&O 70 WDG Herbicide

Result: Minimally irritating
Species: Rabbit
Organ: skin**Serious eye damage/eye irritation**

Direct contact with eyes may cause temporary irritation.

Irritation Corrosion - Eye

Scepter T&O 70 WDG Herbicide

Result: Slightly irritating
Species: Rabbit
Organ: eye**Respiratory or skin sensitization****Respiratory sensitization**

Not a respiratory sensitizer.

Skin sensitization

This product is not expected to cause skin sensitization.

Germ cell mutagenicity

Not classified.

Carcinogenicity

Not classifiable as to carcinogenicity to humans. Please note that the carrier is a natural mineral and as such may contain traces of Crystalline Silica (CAS 14808-60-7).

IARC Monographs. Overall Evaluation of Carcinogenicity

Crystalline Silica (CAS 14808-60-7)

1 Carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Crystalline Silica (CAS 14808-60-7)

Cancer

US. National Toxicology Program (NTP) Report on Carcinogens

Crystalline Silica (CAS 14808-60-7)

Known To Be 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** Very toxic to aquatic life with long lasting effects.

Product	Species	Test Results
Scepter T&O 70 WDG Herbicide		
<i>Acute</i>		
EC50	Selenastrum capricornutum (new name Pseudokirchnerella subca	101.6 mg/l, 96 h
Aquatic		
<i>Acute</i>		
Crustacea	Daphnia	316 mg/l, 48 h
Fish	Pimephales promelas	127 mg/l, 96 h
Components	Species	Test Results
Imazaquin (CAS 81335-37-7)		
Aquatic		
<i>Acute</i>		
Crustacea	Daphnia	> 100 mg/l, 48 h
Fish	Rainbow Trout (oncorhynchus mykiss)	> 100 mg/l, 96 h
Other	Anabaena flos-aquae	18.5 mg/l, 96 h
<i>Chronic</i>		
Other	Lemna gibba (fronds)	0.034 mg/l, 14 d
	NOEC	Lemna gibba (fronds) 0.0136 mg/l, 14 d

Persistence and degradability**Photolysis****Half-life (Photolysis-aqueous)**

Imazaquin 0.75 days

Bioaccumulative potential**Partition coefficient n-octanol / water (log Kow)**

Imazaquin 2.2

Bioconcentration factor (BCF)

Imazaquin 0.39 Q2 estimated, l/kg

Mobility in soil**Adsorption****Soil/sediment sorption - log Koc**

Imazaquin 1.25

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 product.

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 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 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

DOT

Not regulated as dangerous goods.

IATA

UN number	UN3077
UN proper shipping name	Environmentally hazardous substance, solid, n.o.s. (Imazaquin)
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.

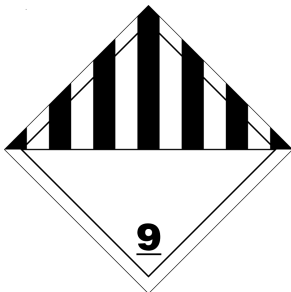
Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Imazaquin), 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 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 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.

HAZARD TO HUMANS AND DOMESTIC ANIMALS.

CAUTION! Causes eye irritation. Avoid contact with skin, eyes or clothing. Harmful if absorbed through skin.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of wastes. This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly when the water table is shallow, may result in groundwater contamination.

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)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Crystalline Silica (CAS 14808-60-7)

Cancer
lung effects
immune system effects
kidney effects

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

Not regulated.

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

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

Crystalline Silica (CAS 14808-60-7)

California Proposition 65



WARNING: This product can expose you to chemicals including Crystalline Silica, which is known to the State of California to cause cancer. This product can expose you to Crystalline Silica, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

Crystalline Silica (CAS 14808-60-7)

Listed: October 1, 1988

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** Jul-14-2017**Revision date** Jul-18-2023**Version #** 3.0**HMIS® ratings**
Health: 1
Flammability: 1
Physical hazard: 0**NFPA ratings**
Health: 1
Flammability: 1
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 material to which the information relates.

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.

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NFPA is a trademark of the National Fire Protection Association, Inc.

Revision information

This document has undergone significant changes and should be reviewed in its entirety.