

SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: Shield-Brite® TBZ 500D **EPA Reg. # 64864-66**
Product Code: 10407
Product Use: Thiabendazole Fungicide for Postharvest Drench and Dip Treatments.
Product Restrictions: For Agriculture Use Only
Manufacturer/Importer/Supplier/Distributor information
Supplier: Pace International, LLC
Address: 5661 Branch Road, Wapato, WA 98951
Phone Number: 800-936-6750 (Monday-Friday, 7:00 a.m. – 4:00 p.m.)
Medical Emergency Phone Number: 888-271-4649 (PROSAR)
Transportation Emergency Phone Number: 800-424-9300 (CHEMTREC)

2. HAZARDS IDENTIFICATION

GHS Classification in accordance with 29 CFR 1910 (2012 OSHA Hazard Communication Standard)
 This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification:
 Physical Hazard
 Not Classified
 Health Hazards
 Acute toxicity – Inhalation, Category 4
 Environmental Hazards
 Not Classified
Hazard Symbols:



Signal Word:
 WARNING

Hazard Statements:
 H332 Harmful if inhaled.

Hazard(s) not otherwise classified (HNOC):

Supplemental information:

Precautionary Statements:
Prevention Statements:
 P261 Avoid breathing mist, vapor or spray.
 P264 Wash hands thoroughly after handling.
 P270 Do not eat, drink, or smoke when using this product.
 P271 Use only outdoors or in a well ventilated area.
 P280 Wear long sleeved shirt and pants, socks and shoes, chemical resistant gloves, and safety glasses.
Response Statements:
 P304/340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P317 Get medical help.
Storage Statements:
 P405 Store locked up
Disposal Statements:
 P501 Dispose of contents/container should be made in accordance with applicable regional, national and local laws and regulations.

Causes mild skin irritation. Very toxic to aquatic life with long lasting effects.

Exempt – Registered product – (EPA 64864-66)

This is a registered EPA product. The product labeling is in compliance with EPA regulations and guidelines.
 Refer to product label for further information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical name	CAS #	%
Thiabendazole	148-79-8	41.04 – 43.56
Propylene Glycol	57-55-6	4.75 – 5.25
Hydrochloric Acid	7647-01-0	0.72 – 0.88
Other Ingredients	Proprietary	>50.0

Composition comments: * US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

4. FIRST AID MEASURES

General Advice:

If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

Skin Contact:

IF ON SKIN (or clothing): Take off contaminated clothing. Wash skin with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye Contact:

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. If eye irritation persists: Get medical advice/attention.

Ingestion:

IF SWALLOWED: Call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Inhalation:

IF INHALED: Remove person to fresh air and keep comfortable for breathing. If symptoms persist, obtain medical attention.

Most important

Symptoms / effects, acute and Delayed:

Prolonged contact may cause redness and irritation to skin. Coughing and / or wheezing. Difficulty in breathing.

Indication of any immediate medical attention and special treatment needed:

Provide general supportive measures and treat symptomatically. Symptoms may be delayed.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media:

Treat for surrounding material.

**Unsuitable extinguishing media:
Specific hazards arising from the chemical:**

CAUTION: Use of water spray when fighting fire may be inefficient. Do not use water jet as an extinguisher, as this will spread the fire. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters:

Firefighters must wear full protective clothing including self-contained breathing apparatus

Firefighting equipment/instructions:

Move containers from fire area if you can do so without risk.

Specific methods:

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

General fire hazards:

No unusual fire or explosion hazards noted. Not a fire hazard.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Avoid breathing mist, vapor or spray. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and Materials for Containment and Clean-Up:

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental precautions

Never return spills to original containers for re-use.

For waste disposal, see section 13 of the SDS.

Very toxic to aquatic life with long lasting effects. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.

7. HANDLING & STORAGE

Precautions for Safe Handling:

Avoid breathing mist, vapor or spray. Ensure adequate ventilation. Do

Conditions for Safe Storage, including any Incompatibilities:

not eat, drink or smoke when using this product. Wear appropriate personal protective equipment (see Section 8 of the SDS). Wash thoroughly after handling this product. Use good industrial hygiene practices in handling this material.

PESTICIDE STORAGE: Store in cool, dry place away from food, drink and animal feed. Do not store below 32°F (0°C). Repeated product freezing and thawing should be avoided. Shake or stir product before use.

Keep container tightly closed and upright to prevent leakage and contamination. Store away from incompatible materials (see Section 10 of the SDS). Keep out of reach of children.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits:

This mixture has no ingredients that have PEL, TLV, or other recommended exposure limit.

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

Components	Type	Value
Hydrochloric Acid (CAS# 7647-01-0)	PEL	5 ppm 7 mg/m3

US. ACGIH Threshold Limit Values

Components	Type	Value
Hydrochloric Acid (CAS# 7647-01-0)	TLV	2 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Hydrochloric Acid (CAS# 7647-01-0)	Ceiling	5 ppm 7 mg/m3

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.

Individual protection measures, such as personal protective equipment

Eye/face protection:

Wear safety glasses with side shields, goggles or face shield. Eye wash station and washing facilities should be available.

Skin protection

**Hand protection:
Other:**

Impervious gloves. Confirm with reputable supplier first. Wear appropriate chemical resistant clothing.

Respiratory protection:

Mixers, loaders, applicators and other handlers must wear: long-sleeved shirt, long pants and shoes plus socks. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134)

Thermal hazards:

Not applicable.

General hygiene considerations:

Use good industrial hygiene practices in handling this material. Do not eat, drink or smoke when using this product. Routinely wash work clothing and protective equipment to remove contaminants.

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

9. PHYSICAL & CHEMICAL PROPERTIES

Physical state:	Liquid	Upper/Lower flammability limits:	Not available
Appearance / Color:	Off-white viscous	Vapor pressure:	5.3 x10 ⁻⁴ mPa @

Odor:	liquid	Vapor density: (air =1)	(25°C)
Odor threshold:	Paint-like odor	Specific Gravity: (H₂O = 1)	Not applicable
	Not available		1.13 – 1.15 g/ml
pH:	4.5 – 5.5	Solubility:	(9.43 – 9.60 lb/gal)*
Melting/Freezing point:	Not applicable	Partition coefficient (n-octanol-water):	Emulsifies
		Auto-ignition temperature:	Log Pow = 2.39
Pour Point:	Not available	Decomposition temperature:	(pH 7, 25°C)
Initial boiling point and boiling range:	Not available		Not available
Flash point:	>100°C	Viscosity:	Not available
			145.2 cSt (20°C);
Evaporation rate:	Not available	Explosive properties:	84.4 cSt (40°C)
Flammability (solid, gas):	Not applicable	Oxidizing properties:	Not explosive
			Not oxidizing

*Listed density is an approximate value and does not necessarily represent that of a specific batch.

10. STABILITY & REACTIVITY

Reactivity hazards:	No information available
Possibility of Hazardous Reactions:	No dangerous reaction known under conditions of normal use.
Chemical stability:	Stable under recommended storage conditions.
Conditions to avoid:	Excessive heat.
Incompatible materials:	None known based on information supplied.
Hazardous decomposition products:	None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Routes of exposure:	Eye, Skin contact, Inhalation, Ingestion.	
Information on likely routes of exposure		
Inhalation	Harmful if inhaled.	
Skin contact	Not available.	
Eye contact	Not available.	
Ingestion	Not available.	
Symptoms related to the physical, chemical and toxicological characteristics:	Prolonged contact may cause redness and irritation. Coughing and / or wheezing.	
Information on toxicological effects		
Acute toxicity		
Components	Species	Test Results
PacRite TBZ 4.0 SC (CAS# 64864-66)		
Acute		
Dermal		
LD50		>5000 mg/kg
Inhalation		
LC50		>2.1 mg/L
Oral		
LD50		>5000 mg/kg
Thiabendazole (CAS 148-79-8)		
Acute		
Dermal		
LD50	Not available	
Inhalation		
LC50	Not available	
Oral		
LD50	Rat	3100 mg/kg 2080 mg/kg
Propylene Glycol (CAS# 57-55-6)		
Acute		
Dermal		
LD50	Rabbit	20800 mg/kg
Inhalation		
LC50	Not available	
Oral		
LD50	Rat	20 mg/kg
Hydrochloric Acid (CAS# 7647-01-0)		
Acute		
Dermal		
LD50	Rabbit	>5010 mg/kg
Inhalation		
LC50	Rat	1.68 mg/L, 1 hr

Oral LD50	Rat	238 - 277 mg/kg
Skin corrosion/irritation:	May cause mild skin irritation.	
Exposure minutes	Not available	
Erythema value	Not available	
Oedema value	Not available	
Serious eye damage/eye Irritation:	Not available	
Corneal opacity value	Not available	
Iris lesion value	Not available	
Conjunctival reddening value	Not available	
Conjunctival oedema value	Not available	
Recover days	Not available	
Respiratory or Skin sensitization:		
Respiratory sensitization:	Not a respiratory sensitizer.	
Skin sensitization:	This product is not expected to cause skin sensitization.	
Germ cell mutagenicity:	Non-hazardous by OSHA criteria.	
Carcinogenicity:	Non-hazardous by OSHA criteria. See below.	
IARC Monographs. Overall Evaluation of Carcinogenicity:		
Hydrochloric Acid (CAS# 7647-01-0) Group 3 – Not classifiable as to carcinogenicity to humans.		
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052):		
	Not regulated.	
Reproductive toxicity:	Non-hazardous by OSHA criteria.	
Specific target organ toxicity -single exposure:	Not classified.	
Specific target organ toxicity - repeated exposure:	Not classified.	
Aspiration hazard:	Not an aspiration hazard.	
Chronic effects:	Non-hazardous by OSHA criteria.	
Further information:	Not available	

12. ECOLOGICAL INFORMATION

Ecotoxicity

This pesticide is toxic to fish. Do not apply when weather conditions favor runoff or drift from the target area. 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 waste.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during clean-up procedures and disposal of wastes.

Ecotoxicological data

Components

Propylene Glycol (CAS# 57-55-6)

Aquatic

Algae	EC50
Fish	LC50

LC50

Crustacea	EC50
-----------	------

Species

Test Results

Pseudokirchneriella subcapitata	19000 mg/L, 96 hr
Oncorhynchus mykiss	51600 mg/L, 96 hr
	41 – 47 mL/L, 96 hr
Pimephales promelas	51400 mg/L, 96 hr
	710 mg/L, 96 hr
Daphnia magna	>1000 mg/L, 48 hr
	>10000 mg/L, 24 hr

Persistence/ degradability:

No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential:

No data available

Mobility in soil:

No data available

Mobility in general:

Not 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:

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility in accordance with Federal, State or local procedures under the Resource Conservation and Recovery Act.

**Local disposal Regulations:
Hazardous waste code:**

**Waste from residues / unused
products:**

Contaminated packaging:

CONTAINER DISPOSAL: Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration.

Dispose in accordance with all applicable regulations.

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

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).

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

U.S. Department of Transportation (DOT)

Not regulated as Dangerous Goods.

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS

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.

This is a registered EPA product. The product labeling is in compliance with EPA regulations and guidelines.

EPA 64864-66

EPA Est. # 42750-MO-01

KEEP OUT OF THE REACH OF CHILDREN.

PRECAUTIONARY STATEMENTS:

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed. Causes eye and skin irritation. Avoid contact with eyes, skin, and clothing. Wash thoroughly with soap and water after handling.

ENVIRONMENTAL HAZARDS:

This pesticide is toxic to fish. Do not apply when weather conditions favor runoff or drift from the target area. 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 waste.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during clean-up procedures and disposal of wastes.

NOT FOR USE IN FORMULATING AGRICULTURAL PESTICIDES.

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

DIRECTIONS FOR USE. It is a violation of federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or local Tribe, consult the State or Tribal Agency responsible for pesticide regulation.

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR DISEASE CONTROL, AND/OR ILLEGAL RESIDUES.

STORAGE AND DISPOSAL: Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

PESTICIDE STORAGE: Store in a cool, dry place away from food, drink and animal feeding stuffs. Do not store below 32°F (0°C). Repeated product freezing and thawing should be avoided. Shake or stir product before use.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility in accordance with Federal, State or local procedures under the Resource Conservation and Recovery Act.

CONTAINER DISPOSAL: Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into

application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration.

CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER.

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Hydrochloric acid (CAS# 7647-01-0)

SARA 304 Emergency release notification

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

No

Classified hazard categories

Acute toxicity (any route of exposure)

SARA 313 (TRI reporting)

Chemical name

Thiabendazole

CAS number

148-79-8

% by wt.

1

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.

Food and Drug Administration (FDA)

Not regulated.

US STATE REGULATIONS

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

Not listed

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

Thiabendazole (CAS 148-79-8)

Propylene Glycol (CAS# 57-55-6)

Hydrochloric acid (CAS# 7647-01-0)

Inventory status

Country(s) or region

United States & Puerto Rico

Inventory name

Toxic Substances Control Act (TSCA) Inventory

On inventory (yes/no) *

Yes

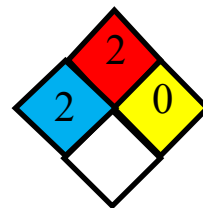
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. OTHER INFORMATION

LEGEND

Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	2
FLAMMABILITY	2
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X



The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, Pace International, LLC and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither Pace International, LLC nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact Pace International, LLC to confirm that you have the most current product label and SDS.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.

SDS preparation date: September 23, 2025
Changes since last revision: Rebranding

Replaces SDS dated: January 12, 2023
Version: 4