

Safety Data Sheet

Section 1: Product and Company Identification

1.1 Product Identifiers:

Product Name: ABRAXIS® DICAMBA ELISA Kit Product Code: 500050

1.2 Identified Use: Determination of Dicamba in water, durum wheat, and soil samples. Restrictions on Use: For research use only.

1.3 Company: Gold Standard Diagnostics, 795 Horsham Road, Horsham, PA 19044 USA, info.abraxis@us.goldstandarddiagnostics.com

+1(215) 357-3911, FAX +1(215) 357-5232

1.4 Emergency Telephone Number: +1(215) 357-3911

Section 2: Hazard(s) Identification

2.1 Classification of the mixture:

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) Flammable liquids (Category 2), H225 Highly flammable liquid and vapor Acute toxicity, Oral (Category 4), H302 Toxic if swallowed Acute toxicity, Inhalation (Category 3), H331 Toxic if inhaled Acute toxicity, Dermal (Category 3), H311 Toxic in contact with skin Serious eye damage (Category 1), H318 Short-term (acute) aquatic hazard (Category 3), H402 Long-term (chronic) aquatic hazard (Category 3), H412 Specific target organ toxicity - single exposure (Category 1), H370 Causes damage to organs HMIS Rating: Health hazard: 2, Chronic Health Hazard: *, Flammability: 3, Physical Hazard 0 NFPA Rating: Health hazard: 2, Fire Hazard: 3, Reactivity Hazard: 0 **2.2 GHS Label elements, including precautionary statements:** Pictogram(s)



Signal word: Danger Hazard statement(s): H290 May be corrosive to metals. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s): P234 Keep only in original container. P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301 + P312 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor if you feel unwell. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor. P363 Wash contaminated clothing before reuse. P390 Absorb spillage to prevent material damage. P405 Store locked up.

P406 Store in corrosive resistant container with a resistant inner liner. P501 Dispose of contents/ container to an approved waste disposal plant.

P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS: None known.

2.4 Unknown acute toxicity: None known.

Section 3: Composition / Information on Ingredients

3.2 Mixtures: Mixture of the hazardous substance(s) listed below, with nonhazardous additions. Hazardous component(s): Formula: C₈H₆Cl₂O₃ Molecular weight: 221 g/mol Name and Synonym(s): Dicamba CAS No.: 1918-00-9 EC-No.: 217-635-6 Classification: Acute Toxicity, 4; H302, H318, H402, H412 Percentage in Mixture: < 0.000857% Name and Synonym(s): Tetramethylbenzidine (TMB) Formula: C16H₂₀N₂ Molecular weight: 240.3482 g/mol CAS No.: 54827-17-7 EC-No.: 259-364-6 Classification: Contains no hazardous ingredients at levels requiring disclosure by OSHA Hazard Communication Standard (29 CFR 1910.1200) Percentage in Mixture: < .05% Name and Synonym(s): Sulfuric Acid Formula: H₂SO₄ Molecular weight: 98.08 g/mol CAS No.: 7664-93-9 EC-No.: 231-639-5 Classification: Acute Toxicity, 3; H311 Percentage in Mixture: < 2% For full text of H-Statements mentioned in this Section, see Section 2.

Section 4: First Aid Measures

4.1 Description of first aid measures: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Take off all contaminated clothing. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed: Rinse water, then drink water, two glasses at most. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed: The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed: No data available. Treat symptomatically.

Section 5: Fire-fighting Measures

5.1 Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. **Unsuitable extinguishing media:** None given

5.2 Special hazards arising from the substance or mixture: Carbon oxides, Hydrogen chloride gas, Sulfur oxides

5.3 Advice for firefighters: Wear self-contained breathing apparatus for fire-fighting if necessary.

5.4 Further information: Use water spray to cool unopened containers.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures: Use personal protective equipment (see section 8). Avoid dust formation. Avoid breathing vapors, mist, dust, or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

6.2 Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up: Contain spillage. Solids (if applicable): Pick up and arrange disposal without creating dust. Sweep up and shovel. Liquids (if applicable): Absorb with non-combustible liquid-binding material (sand, earth, diatomite, vermiculite). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections: For information on safe handling see section 7.

For information on personal protection see section 8.

For information on disposal see section 13.

Section 7: Handling and Storage

7.1 Precautions for safe handling: See section 2. Avoid inhalation of vapors or mist, and avoid contact with skin and eyes. Wear appropriate personal protective equipment. Use explosion-proof equipment. Keep away from sources of ignition. Do not eat, drink, or smoke in work area. Take measures to prevent the buildup of electrostatic charge.

7.2 Precautions for safe storage: No metal containers. Keep container(s) tightly closed in a dry, well-ventilated place. Protect from physical damage. Opened containers must be carefully resealed and kept upright to prevent leakage. See label or product insert for appropriate storage temperature and additional specific information. Storage class (TRGS 510): Non-combustible, corrosive hazardous materials.
7.3 Specific end use(s): Other than use(s) specified in section 1, no other uses are stipulated.

Section 8: Exposure Controls / Personal Protection

8.1 Control parameters:

Component(s) with workplace control parameters

Sulfuric Acid, CAS 7664-93-9

Value	Control parameters	Basis
Dicamba	Contains no substances with occupational exposure limit values. Hazardous components without workplace control parameters.	
Tetramethylbenzidine	Contains no substances with occupational exposure limit values. Hazardous components without workplace control parameters. Dicamba	
Sulfuric Acid	0.2 mg/ m ³	USA. ACGIH Threshold Limit Values (TLV)
	1 mg/m ³	USA. OSHA – TABLE Z – 1 Limits for Air Contaminants – 1910.1000
	1 mg/m ³	USA. Occupational Exposure Limits; (OSHA) - Table Z-1 Limits for Air Contaminants

Biological occupational exposure limits

Derived No Effect Level (DNEL)

Predicted No Effect Concentration (PNEC)

8.2 Exposure controls:

Appropriate engineering controls: Provide adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Keep away from food and beverages.

Personal protective equipment

Eye protection: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection: Handle with chemical resistant gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Respiratory protection: Use a chemical fume hood or approved respiratory protection equipment.

Body protection: Lightweight, protective acid-resistant clothing to prevent skin exposure.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties of mixture

Appearance: Multiple Odor: Characteristic Odor Threshold: No data available pH: Multiple Melting point/freezing point: No data available Initial boiling point and boiling range: No data available Flash point: No data available Evaporation rate: No data available Flammability (solid, gas): No data available Upper/lower flammability or explosive limits No data available Vapor pressure: No data available Vapor density: No data available Relative density: No data available Water solubility: Various Partition coefficient: n-octanol/water: No data available Auto-ignition temperature: Not applicable Decomposition temperature: No data available Viscosity: No data available Explosive properties: No data available Oxidizing properties: No data available 9.2 Other information: No data available

Section 10: Stability and Reactivity

10.1 Reactivity: No data available

10.2 Chemical stability: Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions: A risk of explosion and/or of toxic gas formation exists with the following substances:

Violent reactions possible with: Alkali metals, alkali compounds, Ammonia Aldehydes, acetonitrile, Alkaline earth metals, alkalines, Acids, alkaline earth compounds, Metals metal alloys, Oxides of phosphorus, phosphorus hydrides, halogen-halogen compounds, oxyhalogenic compounds, permanganates, nitrates, Carbides, combustible substances, organic solvent, acetylidene, Nitriles, organic nitro compounds, anilines, Peroxides, picrates, nitrides, lithium silicide, iron(III) compounds, bromates, chlorates, Amines, perchlorates, hydrogen peroxide **10.4 Conditions to avoid**: Keep away from open flame, hot surfaces, heat sources, and sources of ignition.

10.5 Incompatible materials: Animal/vegetable tissues, Metals - contact with metals liberates hydrogen gas

10.6 Hazardous decomposition products: No data available. In the event of fire: see section 5.

Section 11: Toxicological Information

11.1 Information on toxicological effects

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin; spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Pulmonary edema. Effects may be delayed.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

After inhalation of aerosols: damage to the affected mucous membranes. After skin contact: severe burns with formation of scabs. After eye contact: burns, corneal lesions. After swallowing: severe pain (risk of perforation!), nausea, vomiting and diarrhoea. After a latency period of several weeks possibly pyloric stenosis.

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

Stomach - Irregularities - Based on Human Evidence

Section 12: Ecological Information

12.1 Toxicity

Toxicity to daphnia and other aquatic invertebrates static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h (OECD Test Guideline 202) Toxicity to algae static test ErC50 - Desmodesmus subspicatus (green algae) - > 100 mg/l - 72 h (OECD Test Guideline 201)

12.2 Persistence and degradability The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential No data available

12.4 Mobility in soil No data available

12.5 Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted **12.6 Other adverse effects** Biological effects: Forms corrosive mixtures with water even if diluted. Harmful effect due to pH shift. Endangers drinking-water supplies if allowed to enter soil or water.

Further information on ecology: Discharge into the environment must be avoided.

Biological effects: Harmful effect due to pH shift. Caustic even in diluted form. Does not cause biological oxygen deficit. Endangers drinkingwater supplies if allowed to enter soil and/or waters in large quantities. Neutralisation possible in waste water treatment plants. Discharge into the environment must be avoided.

Section 13: Disposal Considerations

13.1 Waste treatment methods

Product: All waste must be handled and disposed according to local, state, and federal regulations. Avoid disposing large volumes in sewer. **Contaminated packaging:** All waste must be handled and disposed according to local, state, and federal regulations. Refer to sections 7 and 8 for safe handling guidance.

Section 14: Transport Information

DOT, Land Transport ADR/RID (cross-border), Maritime Transport IMDG, Air Transport ICAO-TI and IATA-DGR UN Number: 1830 UN Proper shipping name: Chemical Kit Transport hazard class(es): 8 Packing group: II Environmental hazard: See section 12 Bulk transport: Excepted/Limited quantity Special considerations: See section 7 for handling

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Section 15: Regulatory Information

SARA 302 Components Sulfuric acid CAS-No. 7664-93-9 Revision Date 2007-07-01

SARA 313 Components The following components are subject to reporting levels established by SARA Title III, Section 313: Sulfuric acid CAS-No. 7664-93-9 Revision Date 2007-07-01

Massachusetts Right To Know Components No components are subject to the Massachusetts Right to Know Act.

Section 16: Other information

This information is based on our present knowledge. While Gold Standard Diagnostics believes that the data contained herein are factual and the opinions expressed represent a best effort to present accurate information, the data are not to be taken as a warranty or representation for which Gold Standard Diagnostics assumes legal responsibility. The information shall not be taken as being all-inclusive and is to be used only as a guide. The data are offered solely for the user's consideration, investigation, and verification. These suggestions should not be confused with either state, municipal, or insurance requirements, or with national safety codes and constitute no warranty. Any use of these data and information must be determined by the user to be in accordance with applicable federal, state, and local regulations.

All materials and mixtures may present unknown hazards and should be used with caution. Since Gold Standard Diagnostics cannot control the methods, volumes, or conditions of use of this product, Gold Standard Diagnostics shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. An individual technically qualified to handle potentially hazardous chemicals must supervise the use of this material. This product is sold for research use only. It is not for any human or animal therapeutic or clinical diagnostic use.

Date this SDS is effective: 05/16/2024 Version: 1