

1. Identification

1.1. Product identifier

Product Identity DS2

Alternate Names DS2

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use See Technical Data Sheet.

Application Method See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name DME Co
29111 STEPHENSON HWY
MADISON HEIGHTS, MI 48071

Emergency

CHEMTREC (USA) (800) 424-9300
24 hour Emergency Telephone No. US CHEMTREC number 1-800-424-9300
Outside the US (Canada) number 1-703-527-3887
Mexico 1-800-681-9531 (CHEMTREC)
Customer Service: DME Co 800-626-6653 (U.S.), 800-387-6600 (Canada)
or 248-398-6000 (worldwide)

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Acute Tox. 5;H303	May be harmful if swallowed. (This category was not adopted by Canada)
Skin Irrit. 2;H315	Causes skin irritation.
Eye Dam. 1;H318	Causes serious eye damage.
Aquatic Acute 2;H401	Toxic to aquatic life.
Aquatic Chronic 1;H410	Very toxic to aquatic life with long lasting effects.

2.2. Label elements



Danger

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H303 May be harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H401 Toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

[Prevention]:

P273 Avoid release to the environment.
P280 Wear protective gloves / eye protection / face protection.

[Response]:

P302+352 IF on skin: Wash with plenty of soap and water.
P305+351+338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P310 Immediately call a POISON CENTER or doctor / physician.
P312 Call a POISON CENTER or doctor / physician if you feel unwell.
P332+313 If skin irritation occurs: Get medical advice / attention.
P362+364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.

[Storage]:

No GHS storage statements

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the Controlled Products Regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Sulphamic acid CAS Number: 0005329-14-6 Synonyms: Sulfamic acid, Sulphamic acid	65 - 85	Eye Irrit. 2;H319 Skin Irrit. 2;H315 Aquatic Chronic 3;H412	[1]
Oxalic acid CAS Number: 0000144-62-7 Synonyms: Axit oxalic, Oxalic acid	7 - 13	Acute Tox. 4;H312 Acute Tox. 4;H302 Combustible Dust	[1][2]
1,2,3-Benzotriazole CAS Number: 0000095-14-7 Synonyms: 1,2,3-Benzotriazole, 1H-Benzotriazole	3 - 7	Acute Tox. 4;H302 Eye Irrit. 2;H319	[1]
Stannous chloride dihydrate CAS Number: 0010025-69-1 Synonyms: Stannous chloride dihydrate	3 - 7	Acute Tox. 4;H302 Skin Corr. 1B;H314 Aquatic Acute 1;H400	[1]

The actual concentration or concentration range is withheld as a trade secret.

[1] Substance with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the phrases are shown in Section 16.

Section 4. First aid measures

4.1. Description of first aid measures

General	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
Eyes	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention. Remove contacts immediately.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
Ingestion	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Overview	No specific symptom data available. Treat symptomatically. See section 2 for further details.
Eyes	Causes serious eye damage.
Skin	Causes skin irritation.
Ingestion	May be harmful if swallowed.
Inhalation	May cause irritation of mucous membranes.

Section 5. Fire-fighting measures

5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray.
Do not use: water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available.

5.3. Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.

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Section 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8.

Contain and absorb spillage with non-combustible materials e.g. sand, earth, and vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations.

Section 7. Handling and storage

7.1. Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Incompatible materials: No data available.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

Section 8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0000095-14-7	1,2,3-Benzotriazole	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0000144-62-7	Oxalic acid	OSHA	TWA 1 mg/m3
		ACGIH	TWA: 1 mg/m3 STEL: 2 mg/m3
		NIOSH	TWA 1 mg/m3 ST 2 mg/m3
		Supplier	No Established Limit
0005329-14-6	Sulphamic acid	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

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0010025-69-1	Stannous chloride dihydrate	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

8.2. Exposure controls

Respiratory	If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.
Eyes	Wear safety glasses with side shields to protect the eyes. An eye wash station is suggested as a good workplace practice.
Skin	Wear PVC or rubber gloves to keep skin contact to a minimum. Refer to the manufacturer's recommendations regarding the suitability of any gloves used.
Engineering Controls	Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.
Other Work Practices	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details.

Section 9. Physical and chemical properties

Appearance	White Powder Solid
Odor	Odorless
Odor threshold	Not determined
pH	Not Available
Melting point / freezing point	Not Available
Initial boiling point and boiling range	Not Available
Flash Point	Not Available
Evaporation rate (Ether = 1)	Not Available
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: Not Available Upper Explosive Limit: Not Available
Vapor pressure (Pa)	Not Available
Vapor Density	Not Available
Specific Gravity	Not Available
Solubility in Water	Not Available
Partition coefficient n-octanol/water (Log Kow)	Not Available

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Auto-ignition temperature Not Available
Decomposition temperature Not Available
Viscosity (cSt) Not applicable

9.2. Other information

No other relevant information.

Section 10. Stability and reactivity

10.1. Reactivity

Product is reactive. It does not undergo hazardous polymerization.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Avoid sources of heat, direct sunlight and overheating. Protect from moisture.

10.5. Incompatible materials

Strong oxidants, bases.

10.6. Hazardous decomposition products

During the fire, the product may produce harmful fumes containing carbon oxides and other unidentified products of thermal decomposition. Do not inhale combustion products, they can be dangerous for human health.

Section 11. Toxicological information

Acute toxicity

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Sulphamic acid - (5329-14-6)	2,140.00, Rat - Category: 5	>2,000.00, Rat - Category: 5	No data available	No data available	No data available
Oxalic acid - (144-62-7)	375.00, Rat - Category: 4	20,000.00, Rabbit - Category: NA	No data available	No data available	No data available
1,2,3-Benzotriazole - (95-14-7)	500.00, Rat - Category: 4	>2,000.00, Rabbit - Category: 5	No data available	No data available	No data available
Stannous chloride dihydrate - (10025-69-1)	No data available	No data available	No data available	No data available	No data available

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Carcinogen Data

CAS No.	Ingredient	Source	Value
0000095-14-7	1,2,3-Benzotriazole	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0000144-62-7	Oxalic acid	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0005329-14-6	Sulphamic acid	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0010025-69-1	Stannous chloride dihydrate	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

Classification	Category	Hazard Description
Acute toxicity (oral)	5	May be harmful if swallowed. (This category was not adopted by Canada)
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	2	Causes skin irritation.
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

Possible routes of entry:: No data available.

Symptoms and effects, both acute and delayed::

No specific symptom data available.

Treat symptomatically.

Inhalation

Eyes Causes serious eye damage.

Skin Causes skin irritation.

Ingestion May be harmful if swallowed. (This category was not adopted by Canada)

Section 12. Ecological information

12.1. Toxicity

Very toxic to aquatic life with long lasting effects.

Toxic to aquatic life

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Sulphamic acid - (5329-14-6)	70.30, Pimephales promelas	71.60, Daphnia magna	48.00 (72 hr), Desmodesmus subspicatus
Oxalic acid - (144-62-7)	325.00, Leuciscus idus	162.20, Daphnia magna	19.14 (72 hr), Pseudokirchneriella subcapitata
1,2,3-Benzotriazole - (95-14-7)	55.00, Cyprinodon variegatus	137.00, Daphnia magna	75.00 (72 hr), Pseudokirchnerella subcapitata
Stannous chloride dihydrate - (10025-69-1)	Not Available	Not Available	Not Available

12.2. Persistence and degradability

Do not expect bioaccumulation.

oxalic acid log Po/w -1.7

sulphamic acid log Kow -4.3438

12.3. Bioaccumulative potential

Oxalic acid undergoes biological degradation (73 %/ 30 days)

12.4. Mobility in soil

Mobility of components of the mixture depends on the hydrophilic and hydrophobic properties and biotic and abiotic conditions of soil, including its structure, climatic conditions, seasons and soil organisms.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

Section 13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

Section 14. Transport information

	TDG (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	Not Regulated	Not Regulated	Not Regulated
14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
14.3. Transport hazard class(es)	TDG Hazard Class: Not Applicable	IMDG: Not Applicable Sub Class: Not Applicable	Air Class: Not Applicable
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable
14.5. Environmental hazards			
IMDG	Marine Pollutant: Yes; (1,2,3-Benzotriazole)		
14.6. Special precautions for user	Not Applicable		

Section 15. Regulatory information

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.

WHMIS 1988 Classification D2B E

Canadian Domestic Substance List (DSL):

1,2,3-Benzotriazole
Oxalic acid
Sulphamic acid

Canadian Non-Domestic Substance List (NDSL):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Section 16. Other information

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The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

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- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H400 Very toxic to aquatic life.
- H412 Harmful to aquatic life with long lasting effects.

The information contained herein is furnished without warranty of any kind. The above information is believed to be correct but does not purport to be all inclusive and should be used only as a guide. Users should make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers.

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