



MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

Product Name : **Target® 6 Plus**
Pesticide Class : Herbicide, arsenical
General Use : Herbicide
EPA Registration : 42519-3
Synonyms : Monosodium methanearsonate (MSMA)

2. COMPOSITION / INFORMATION ON INGREDIENTS

ACTIVE INGREDIENT

Chemical Name : Monosodium methanearsonate
Chemical Family : Organo-arsenic compounds
Formula : $\text{CH}_3\text{AsO}_3\text{Na}$
Molecular Weight : 161.94

Component	wt. %	CAS Registry
Monosodium methanearsonate	48.3	2163-80-6

3. PHYSICAL DATA

Appearance : Clear liquid; light yellow
Odor : None
Density : 1.49 g/ml
Melting Point : Not Applicable
Boiling Point : 107-120 °C
Freezing Point : -25 - -15 °C
Solubility in Water (% by Wt.) : 58.3% w/w at 25°C
pH : 5.5 - 6.0
Vapor Pressure : Not Available
Vapor Density (Air=1) : 0.6
Evaporation Rate (n-BuAc = 1) : Ca. 0.7

4. FIRE AND EXPLOSION DATA

Flashpoint and Method : Not Combustible
Flammable Limits : Not Applicable
Autoignition Temperature : Not Combustible
Extinguishing Media: Dry chemical or Carbon Dioxide (CO_2)
Do not use water or foam, as this may spread product.
Special Fire Fighting Procedures: Fire fighting personnel must wear pressure-demand, self contained breathing apparatus (SCBA) for all indoor fires and significant outdoor fires.
Unusual Fire and Explosion Hazard: Toxic fumes may be generated in fire situations.
See NFPA rating on section 10

5. HEALTH HAZARD INFORMATION

Acute Toxicological Data:

Oral Toxicity (LD_{50}) : 2833 mg/kg (rat)
Dermal Toxicity (LD_{50}) : >2000 mg/kg (rabbit)
Inhalation (4-hour LC_{50}) : 2.20 mg/L (rat)
Eye Irritation : Not a primary irritant
Skin Irritation : Not a primary irritant
Dermal Sensitization : Not a contact sensitizer

Potential Health Effects:

Inhalation: May be irritating to the respiratory tract and mucous membranes.

Skin: Mildly irritating with repeated or prolonged contact. Not readily absorbed through unbroken skin.

Eyes: May cause slight irritation, and conjunctivitis (inflammation if the inner surface of the eye lids), which may persist for several days unless eyes are promptly flushed with water.

Ingestion: Slightly toxic. Breath may have garlic odor. Toxic doses may cause burning of the throat, stomach pain, headache, dizziness, stupor, vomiting, diarrhea, convulsions, paralysis and/or death.

Chronic Effects: Persistent irritation, salty taste in mouth, burning sensation in throat, stomach pains.

Emergency First Aid Procedures: *Call a physician immediately in all cases of suspected poisoning.*

Inhalation: Remove victim from exposure by moving to an area of fresh air. If breathing is difficult or absent, send for immediate medical attention. If breathing has stopped, artificial respiration should be started by qualified personnel. Oxygen may be administered by qualified personnel.

Ingestion: If conscious, ensure airway is clear, then have victim drink several glasses of water and induce vomiting by sticking fingers in back of throat. Never give anything by mouth to an unconscious person. Obtain immediate medical attention.

Eyes: Immediately flush with water for at least 15 minutes, hold eyelids open to ensure adequate flushing of the entire eye. If irritation or discomfort develops, seek medical attention.

Skin: Wash affected area with soap and water. If irritation or discomfort develops, seek medical attention.

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Notes to Physician:

If ingested, gastric lavage may be indicated. Literature recommendations for arsenic poisoning calls for chelation therapy with BAL or D-penicillamine. Persons with a sensitivity to penicillins may suffer an allergic reaction. BAL is recommended for persons allergic to penicillin.

6. REACTIVITY DATA

Stability: Stable under normal conditions.

Incompatibility: Heavy metal salts may cause precipitation. Mildly corrosive to steel. May react with reducing agents such as aluminum, zinc, sodium borohydride, sulfur dioxide.

Hazardous Decomposition Products: Reducing agents may release arsine gas.

Hazardous Polymerization: Will not occur.

7. SPILL OR LEAK PROCEDURE

Steps to be Taken if Material is Released or spilled: Stop leak if possible. Contain spilled product with an inert diking material, such as sand. Cover the spill area with a 1:1 mixture of vermiculite and solid calcium oxide (the amount of the mixture should be at least double the size of the spill). Place reclaimed product in a closed and properly labeled waste drum. Store drum in separate area until proper disposal. Flush residue with water.

Waste Disposal Method: Dispose in accordance with local, state, and federal regulations.

8. SPECIAL PROTECTION INFORMATION

Ventilation: Work up wind during outside batch operations. If product is used inside, ensure local exhaust ventilation sufficient to maintain arsenic air concentrations below regulatory requirements.

Respiratory Protection: To minimize exposures, wear a NIOSH/MSHA approved dust or mist respirator. Implement a respiratory protection plan in accordance with OSHA 29CFR1910.134.

Eye Protection: Chemical splash goggle and/or faceshield.

Gloves: Rubber or neoprene of appropriate thickness for the task to be performed.

Other Protective Equipment: Long sleeve shirt, long pants, boots, and appropriate gloves should be worn when handling or applying this product. In addition, Mixer-loaders should wear an apron and faceshield. Others working near application sites should also wear appropriate personal protective clothing and equipment. Personnel involved in ground spray operations should wear an approved respirator. An emergency shower and eyes wash station should be provided in areas of product formulation.

9. SPECIAL PRECAUTIONS

Precautionary Labeling: Keep out of reach of children.

Storage and Disposal: Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Wastes resulting from the use of this product must be disposed of in accordance with local, state, or federal regulations. Do not reuse empty container. If container is offered for recycling or reconditioning it must be triple rinsed or cleaned with an equal process. If offered for sanitary landfill, triple rinse and puncture container or by other procedures approved by local, state, or federal authorities.

10. ADDITIONAL INFORMATION**ENVIRONMENTAL HAZARDS**

Keep children and domestic animals off treated areas until the product has been washed into the soil. Do not apply directly to water. Do not contaminate water by cleaning of equipment or disposal of waste. Do not contaminate waters used for domestic purposes, or by wildlife, including aquatic life, or for irrigation. Do not feed treated foliage to livestock or allow grazing of treated areas. Do not spray or allow to drift onto vegetables, ornaments or other desirable plants. Do not apply when conditions may cause product to drift from application area.

EPA**HANDLER REQUIREMENTS**

Worker Protection Standard 40 CFR 170

SARA TITLE III

313 Inventory Ingredients: arsenic compounds (22.6%)

312 Hazards Classification: Not Applicable

(The toxicity of the organic arsenical used in this product is lower than that of inorganic arsenic compounds)

NFPA RATING

Health : 1 Fire : 0 Reactivity : 0

OSHA HAZARDOUS COMPONENTS (29CFR1910.1200)

Exposure Limits (8 hour TWA)

OSHA - PEL ACGIH - TLV

Target® 6 Plus	Not Established	Not Established
Arsenic, Inorganic	0.5 mg/M ³	0.2 mg/M ³

NOT LISTED AS A CARCINOGEN BY:

IARC, NTP, OSHA, California (Prop 65)

TRANSPORTATION INFORMATION

Transportation classification

IATA (air):	Not-Regulated
IMO (Water):	Not-Regulated
DOT (Land):	Not-Regulated
DOT Shipping Name:	Not Applicable
Freight Classification:	Herbicide, n.o.i., Liquid

The information contained herein is applicable solely to the indicated product, and does not relate to any other use of this product as described. Its use is intended by persons having technical skill and at their own discretion and risk. The information has been developed from sources reliable. This information is furnished without warranty, expressed or implied, including the warranties of merchantability and fitness for a particular purpose is made with respect to the information contained herein.

Target® 6 Plus/MSDS/DT/060709

