



Safety Data Sheet

Version 7.0
Revision Date: 07/02/2019

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **Maleic anhydride-d₂**
Product abbreviation: D2MAH
Product use: For laboratory research purposes.
Supplier / Manufacturer: Polymer Source, Inc.
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2. HAZARDS IDENTIFICATION

Emergency overview: Other hazards which do not result in classification: Sternutator.

WHMIS classification: E. Corrosive material. Corrosive.

GHS classification: Acute toxicity, Oral (Category 4),
Skin corrosion (Category 1B),
Serious eye damage (Category 1),
Respiratory sensitisation (Category 1),
Skin sensitisation (Category 1).

GHS Label elements, including precautionary statements:

Pictogram:



Signal word: Danger

Hazard statements: H302. Harmful if swallowed.
H314. Causes severe skin burns and eye damage.
H317. May cause an allergic skin reaction.
H334. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements: P261. Avoid breathing dust / fume / gas / mist / vapours / spray.
P280. Wear protective gloves / protective clothing / eye protection / face protection.

		P305 + P351 + P338. <i>If in eyes:</i> 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.
HMIS classification:	Health hazard:	3
	Chronic health hazard:	*
	Flammability:	0
	Physical hazards:	0
Potential health effects:	Inhalation:	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
	Skin:	May be harmful if absorbed through skin. Causes skin burns.
	Eyes:	Causes eye burns.
	Ingestion:	May be harmful if swallowed.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Formula:	Maleic anhydride-d ₂ :	C ₄ D ₂ O ₃
Molecular weight:	100.07 g/mol	
Concentration:	≤ 100%	
CAS registry number:	Maleic anhydride-d ₂ :	33225-51-3

4. FIRST AID MEASURES

General advice:	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 contaminated clothing and shoes immediately. 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. Continue rinsing eyes during transport to hospital.
If swallowed:	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Conditions of flammability:	Not flammable or combustible.
Suitable extinguishing media:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment for firefighters:	Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products:

Explosion data:	Sensitivity to mechanical impact:	no data available
	Sensitivity to static discharge:	no data available

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
Environmental precautions:	Do not let product enter drains.
Methods and materials for containment and cleaning up:	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling:	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.
Conditions for safe storage:	Keep container tightly closed in a dry and well-ventilated place. Moisture sensitive. Reacts violently with water.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protective equipment:

- Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
- Hand protection: Handle with 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.
- Eye protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- Skin and body protection: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
- Specific engineering controls: Use mechanical exhaust or laboratory fumehood to avoid exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Form:	Solid
	Colour:	White
Safety data:	pH:	no data available
	Melting point / Freezing point:	m.p. (lit.): 51–56 °C (124–133 °F)
	Boling point:	b.p.(lit.): 200 °C (392 °F)
	Flash point:	no data available
	Ignition temperature:	no data available
	Auto-ignition temperature:	no data available
	Lower explosion limit:	no data available
	Upper explosion limit:	no data available
	Vapour pressure:	no data available
	Density:	no data available
	Water solubility:	no data available
	Partition coefficient: n-octanol/water:	no data available
	Relative vapour density:	no data available
	Odour:	no data available
	Odour threshold:	no data available
	Evaporation rate:	no data available

10. STABILITY AND REACTIVITY

Chemical stability:	Stable under recommended storage conditions.
Radioactivity:	Stable isotope compound. Not radioactive.
Possibility of hazardous reactions:	no data available
Conditions to avoid:	Avoid moisture.
Materials to avoid:	Strong oxidizing agents, Strong acids, Strong bases, Strong reducing agents, Alkali metals, Amines.
Hazardous decomposition products:	Hazardous decomposition products formed under fire conditions: Carbon oxides. Other decomposition products: no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity:	Oral LD50:	no data available
	Inhalation LC50:	no data available
	Dermal LD50:	no data available
	Other information on acute toxicity:	no data available
Skin corrosion/irritation:	no data available	

Serious eye damage/eye irritation:	no data available
Respiratory or skin sensitization:	May cause allergic respiratory and skin reactions.
Germ cell mutagenicity:	no data available
Carcinogenicity:	<p>IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.</p> <p>ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.</p>
Reproductive toxicity:	no data available
Teratogenicity:	no data available
Specific target organ toxicity:	<p>Single exposure (Globally Harmonized System): no data available</p> <p>Repeated exposure (Globally Harmonized System): no data available</p>
Aspiration hazard:	no data available
Potential health effects:	<p>Inhalation: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.</p> <p>Ingestion: May be harmful if swallowed.</p> <p>Skin: May be harmful if absorbed through skin. Causes skin burns.</p> <p>Eyes: Causes eye burns.</p>
Signs and symptoms of exposure:	Cough, Shortness of breath, Headache, Nausea, Vomiting.
Synergistic effects:	no data available
Additional information:	RTECS: not available

12. ECOLOGICAL INFORMATION

Toxicity:	no data available
Persistence and degradability:	no data available
Bioaccumulative potential:	no data available
Mobility in soil:	no data available
PBT and vPvB assessment:	no data available
Other adverse effects:	no data available

13. DISPOSAL CONSIDERATIONS

Product:	Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Contaminated packaging:	Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US):	UN number: 2215 Class: 8 Packing group: III Proper shipping name: Maleic anhydride Marine pollutant: No Poison Inhalation Hazard: No
IMDG:	UN number: 2215 Class: 8 Packing group: III EMS-No: F-A, S-B Proper shipping name: Maleic anhydride Marine pollutant: No
IATA:	UN number: 2215 Class: 8 Packing group: III Proper shipping name: Maleic anhydride

15. REGULATORY INFORMATION

WHMIS classification: E. Corrosive material. Corrosive to skin.

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

16. OTHER INFORMATION

Date of the latest revision: 7 February 2019

Further information: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Polymer Source, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. See www.polymersource.ca for additional terms and conditions of sale.