



**PROTEKU EUROPA
S.L.
Material Safety Data
Sheet
SO2 generating pads**



Section 1 - Chemical Product and Company Identification

Product Name: PROTEKU Sulphur Dioxide generating pads
Other Designations: SO2 Generating Pads, SO2 Pads, SO2 Sheets
General Use: To assure freshness by fungicidal control of Botrytis cinerea on table grapes
Manufacturer: Proteku Europa S.L. Tel: (34) 965673453
Artes Gráficas 1, Naves 1 y 2 Fax: (34) 965673453
San Vicente del Raspeig, Alicante, Spain

Section 2 - Composition / Information on Ingredients

Components: Paper, Polyethylene, Polypropylene and the Active Ingredient
Chemical Name: Active Ingredient: Sodium Metabisulfite
Chemical Formula: Active Ingredient: Na₂S₂O₅
Other Designations: Active Ingredient: Sodium Pyrosulfite, Disodium Pyrosulfite, Pyrosulfurous Acid, Disodium Salt, Sodium Disulphite.
Nº CAS : Active Ingredient: 7681-57-4

Section 3 - Hazards Identification

***** **Emergency Overview** *****

Warning Statement: KEEP OUT OF REACH OF CHILDREN
Hazard Rating: Health = 2, Fire = 0, Reactivity = 0, PPE - Sec. 8, based on Active Ingredient.
Primary Entry Routes: Inhalation
Target Organs: Respiratory system, eyes, skin
Acute Effects: Acute effects to exposure of Sodium Metabisulfite includes eye and mucous membrane irritation. Decomposition of Sodium Metabisulfite (and solutions) may release toxic and hazardous fumes of sulfur oxides, including sulfur dioxide. Acute poisoning from sulfur dioxide is rare because the gas is easily detected. It is so irritating that contact cannot be tolerated. Symptoms include coughing, hoarseness, sneezing, tearing, and breathing difficulty.

Inhalation: Irritant
Eye: Irritant
Skin: Irritant
Ingestion: Not likely to occur
Carcinogenicity: IARC, NTP, and OSHA do not list Sodium Metabisulfite as a carcinogen.

Chronic Effects: Prolonged or repeated exposure to Sodium Metabisulfite may cause dermatitis, and sensitization reactions.

Section 4 - First Aid Measures

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone 13 11 26.

FIRST AID Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance then give artificial respiration, preferably mouth-to-mouth, if possible. Call a Poison Control Center or doctor for further treatment advice.

IF IN EYES: Hold eye open and rinse slowly and gently for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a Poison Control Center or doctor for further treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a Poison Control Center or doctor for further treatment advice.

After first aid, get appropriate medical attention.

Note to physician: Exposure may aggravate acute or chronic asthma, emphysema and bronchitis.

Special Precautions/Procedures: None indicated.

Section 5 - Fire-Fighting Measures

Flash Point: For Active Ingredient Not combustible.

Flash Point Method: For Active Ingredient Not Applicable.

Burning Rate: For Active Ingredient Not Applicable.

Autoignition Temperature: For Active Ingredient Not Applicable.

LEL: For Active Ingredient Not Applicable.

UEL: For Active Ingredient Not Applicable.

Flammability Classification: For Active Ingredient Not Flammable.

Extinguishing Media: Use extinguishing agent appropriate for surrounding fire conditions.

Unusual Fire or Explosion Hazards: None indicated.

Hazardous Combustion Products: May release hazardous gas.

Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

Section 6 - Accidental Release Measures

Spill / Leak Procedures:	Wear appropriate PPE - See Section 8.
Small Spills / Leaks:	Spills can be neutralized with an alkaline material such as caustic soda. Leaks may be located by spraying the area with ammonium hydroxide solution which forms a white fume in the presence of sulfur dioxide.
Large Spills / Leaks:	Large spills should be handled according to a predetermined plan.
Containment:	For large spills, dike far ahead of contaminated runoff for later disposal.

Section 7 - Handling and Storage

Handling Precautions:	Avoid contact with product. Do not breathe dust or vapor.
Storage Requirements:	Avoid heat or moisture. Store in areas, away from heat and moisture and protected from physical damage. Segregate from acids and oxidizers.

Section 8 - Exposure Controls / Personal Protection

Ventilation:	Provide general or local exhaust ventilation systems to maintain Airborne concentrations below OSHA limits (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at the source.
Respiratory Protection:	Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary (very large spills from torn pads), wear a MSHA approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency (cleaning large spills of active ingredient) wear SCBA. <i>Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.</i>
Protective Clothing / Equipment:	Wear protective gloves, boots, and clothing when necessary to prevent excessive skin contact for cleaning very large spills of active ingredient. Wear protective eyeglasses or goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133).
Safety Stations:	Make emergency eyewash stations, showers, and washing facilities available in closed work areas.
Contaminated Equipment:	Remove active material from personal protective equipment as needed.
Comments:	Do not eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before food or beverage consumption.

Section 9 - Physical and Chemical Properties

FOR ACTIVE INGREDIENT: Sodium Metabisulfite:

Physical State:	Solid crystal	Water Solubility:	45 % @ 20 °C
Appearance:	White	Other Solubilities:	NA
Odor Threshold:	pungent SO ₂ odor	Boiling Point:	
Vapor Pressure:		Freezing Point:	
Vapor Density (Air=1):		Melting Point:	150 °C
Formula Weight:	190.11	Evaporation Rate:	Normal.
Density:	NA	pH:	Acidic.
Specific Gravity (H₂O=1):	1.5	% Volatile:	NA

Section 10 - Stability & Reactivity

FOR ACTIVE INGREDIENT: Sodium Metabisulfite:

Stability:	Stable under normal conditions.
Polymerization:	Hazardous polymerization will not occur.
Chemical Incompatibilities:	In the presence of water, or acid, Sodium Metabisulfite (and solutions) may release toxic and hazardous fumes of sulfur oxides, including sulfur dioxide. Acute poisoning from sulfur dioxide is rare because the gas is easily detected. It is so irritating that contact cannot be tolerated. Symptoms include coughing, hoarseness, sneezing, tearing, and breathing difficulty. Contact with powdered potassium, sodium metals, alkali, and oxidizing agents produce violent reactions. Reacts with water and steam to form corrosive sulfurous acid. Reacts with chlorates to form unstable chlorine dioxide.
Conditions to Avoid:	Avoid excessive heat, or open flame, and moisture.
Hazardous Decomposition Products:	May release hazardous sulfur dioxide gas.

Section 11 - Toxicological Information

Eye Effects (rabbit):	Not available.	Acute Inhalation Effects (rat):	Not available.
Skin Effects (rabbit):	Non-corrosive.	Acute Oral Effects (rat):	LD ₅₀ = 115 mg/kg
Carcinogenicity:	IARC, NTP, and OSHA do not list Sodium Metabisulfite as a carcinogen.		
Chronic Effects:	Prolonged or repeated exposure to Sodium Metabisulfite may cause dermatitis, and sensitization reactions. Exposure to asthmatic, atopic and sulfite sensitive individuals may result in severe bronchoconstriction and reduced levels in forced expiratory volume. Decomposition of sodium metabisulfite (and solutions) may release toxic and hazardous fumes of sulfur oxides, including sulfur dioxide, which may cause permanent pulmonary impairments from acute and chronic exposure. The Immediately Dangerous to Life or Health (IDLH) level for SO ₂ is 100 ppm.		

Section 12 - Ecological Information

Ecotoxicity:	Sodium Metabisulfite is a non hazardous solid commonly used as a waste water dechlorinating agent. High concentrations will contribute to elevated chemical oxygen demand in aquatic environments.
Environmental Transport:	Soluble in water.
Environmental Degradation:	Rapid biological decomposition.
Soil Absorption/Mobility:	Slight.

Section 13 - Disposal Considerations

Disposal:	Waste determinations typically consider Sodium Metabisulfite contaminated materials to be non-hazardous.
Disposal Regulatory Requirements:	Follow applicable Federal, state and local regulations.
Container Cleaning and Disposal:	Follow applicable Federal, state and local regulations.

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101):

Shipping Name:	Sodium Metabisulfite, non-regulated material
Shipping Symbols:	NA
Hazard Class:	NA
Subsidiary Hazard:	NA
Packing Group:	NA
Label:	NA
Special Provisions:	NA

Section 15 - Regulatory Information

Regulations:

EPA:	Regulated when used as fungicide under FIFRA.	
RCRA Hazardous Waste Classification (40 CFR 261):		Not listed.
RCRA Hazardous Waste Number (40 CFR 261):		Not listed.
CERCLA Hazardous Substance (40 CFR 302.4):		Not listed.
CERCLA Reportable Quantity (RQ):		NA
SARA Title III: Section 302 Extremely Hazardous Substance:		Not listed.
Section 313 Toxic Chemical:		Not listed.
TSCA:	Inventory listed chemical; PAIR Reportable;	

Other Regulations:

Air Contaminant (29 CFR 1910.1000):	Not listed.
OSHA Specifically Regulated Substance:	Not listed.

Other Regulations:

FDA: Regulated when used as a food preservative.

Section 16 - Other Information

The information herein is believed to be reliable. However, no warranty, expressed or implied, is made as to its accuracy or completeness and none is made as to the fitness of this material for any purpose. The manufacturer shall not be liable for damages to person or property resulting from its use. Nothing herein shall be construed as a recommendation for use in violation of any patent.

January 10th, 2018