

According to 29 CFR 1910.1200

# SODIUM MOLYBDATE DIHYDRATE

Date of issue: June 28, 2018 Revision date: - Version.

#### SECTION 1.- IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

**Product form** Substance.

Substance name Sodium Molybdate Dihydrate

**CAS No.** 10102-40-6

Formula  $Na_2MoO_4 \cdot 2 H_2O$ 

Synonyms Disodium Molybdate Dihydrate.; Molybdic Acid Sodium Dihydrate

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

Use of the substance/mixture Fertilizers

1.3 Details of the supplier of the safety data sheet

Pima Chemicals & Fertilizers, LLC Química Pima, S.A. de C.V.

1370 Nogales, Az. Del Cobre 20, Parque Industrial Hermosillo. Tel. 011 52 (662) 182-0559 Hermosillo, Sonora, México. C.P. 83297

rgutierrez@quimicapima.com Tel. 011 (662) 251-0010 ventas@quimicapima.com

1.4 Emergency telephone number

Emergency number CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300

#### **SECTION 2.- HAZARD IDENTIFICATION**

#### 2.1. GHS-US classification

Skin Corrosion/irritation Category 2
Serious Eye Damage/Eye Irritation Category 2B
Specific target organ toxicity - (repeated exposure). Target Organs - Respiratory system. Category 2

#### 2.2. Label elements

**GHS-US** labelling

Hazard pictograms (GHS-US)

Signal word (GHS-US):



Hazard statement (GHS-US): H315 Causes skin irritation

H320 Causes eye irritation

H373 May cause damage to organs through prolonged or repeated exposure

**Precautionary statements (GHS-US):** P260 Do not breathe dust, fume, gas, mist, vapours or spray.

P264 Wash face, hands and any exposed skin thoroughly after handling.

P280 Wear protective gloves.

P302+P352 IF ON SKIN: Wash with plenty water.

P332+P313 If skin irritation occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse.



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P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/attention. P314 Get medical advice/attention if you feel unwell.

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

**2.3. Other hazards** None.

**2.4 Unknown acute toxicity (GHS-US)** Not applicable.

#### SECTION 3.- COMPOSICION / INFORMATION OF INGREDIENTS

#### 3.1 Substance

Substance type Mono-constituent.

Name	Product identifier	%	GHS-US classification
Sodium molybdate dihydrate	(CAS No.) 10102-40-6	> 99.50	Skin irrit. 2, H315 Eye irrit. 2B, H320 STOT-RE 2, H373

#### **3.2 Mixture** Not applicable.

#### SECTION 4.- FIRST AID MEASURE

#### 4.1. Description of first air measure

First-aid measures general

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice.

First-aid measures after eye contact

Rinse cautiously with water for at least 15 minutes, raising and lowering eyelids occasionally. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after skin contact

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

First-aid measures after inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

First-aid measures after ingestion

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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

**Symptoms/injuries after inhalation** No information available.



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Symptoms/injuries after skin contact No information available.

Symptoms/injuries after eye contact No information available.

No information available. Symptoms/injuries after ingestion

**Chronic symptoms** No information available.

### 4.3. Indications of any immediate medical attention and special treatment needed

Treat symptomatically.

#### SECTION 5.- FIREFIGHTING MEASURES

5.1. Extinguishing media

No information available Suitable extinguishing media Unsuitable extinguishing media No information available

5.2. Special hazard arising from the substance or mixture

Fire hazard No information available No information available **Explosion hazard** 

Hazard thermal decomposition products None known

5.3. Advice for firefighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing **Protective equipment** 

apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a

**Emergency procedures** fire. No action shall be taken involving any personal risk or without suitable training. Keep

product and empty container away from heat and sources of ignition.

#### SECTION 6.- ACCIDENTAL RELEASE MEASURES

#### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Protective equipment Safety glasses.

> No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation.

**Emergency procedures** Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal

protective equipment.

6.1.2. For emergency responders

If specialized clothing is required to deal with the spillage, take note of any information Protective equipment

in Section 8 on suitable and unsuitable materials. See also the information in "For non-

emergency personnel".

Do not breathe fumes or vapors from fire decomposition. If possible, stop flow of Emergency procedures

product. Contain and collect any solid. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment.



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#### 6.3. Methods and material for containment and cleaning up.

Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a

licensed waste disposal contractor.

Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Large spill

#### 6.4 Reference to other sections

See Heading 8. Exposure controls and personal protection.

#### SECTION 7.- HANDLING AND STORAGE

#### 7.1. Precautions for safe handling

Dut

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and

can be hazardous. Do not reuse container.

Advice on general occupational hygiene

Protective measures

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

### 7.2. Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and

driphing dri

Use appropriate containment to avoid environmental contamination.

Incompatible products

Storage conditions

See Section 10.

Incompatible

materials

See Section 10.

7.3 Specific end use(s)

No additional information available.

#### SECTION 8.- EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium molybdate dihydrate 10102-40-6	TWA: 0.5 mg/m <sup>3</sup>	(Vacated) TWA: 5 mg/m <sup>3</sup>	IDLH: 1000 mg/m <sup>3</sup>

#### 8.2. Exposure controls

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the

Hand protection

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Eye protection

Respiratory protection

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gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher

degree of protection: chemical splash goggles.

Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the

selected respirator.

Appropriate footwear and any additional skin protection measures should be selected based on **Other information**Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before

handling this product.

#### **SECTION 9.- PHYSICAL AND CHEMICAL PROPERTIES**

9.1 Information on basic physical and chemical properties

Physical state:SolidAppearance:CrystalsOdor:OdorlessColor:White

Molecular mass 241.944 g/mol

Odor threshold

pH

No information available

pH solution

No information available

No information available

No information available

No information available

Melting pointNo data available.Freezing pointNo data available.

Boiling point No information available

Flash point

Self ignition temperature

No data available.

Decomposition temperature

No data available.

No data available.

Flammability (solid, gas)

No data available.

Vapor pressure

No data available.

Relative vapor density at 20°C

No information available

No information available

Specific gravity 3.28

**Solubility** No information available

Log PowNo data available.Log KowNo data available.Viscosity, kinematicNo data available.



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Viscosity, dynamicNo data available.Explosive propertiesNo data available.Oxidizing propertiesNo data available.Explosive limitsNo data available.

9.2 Other information

No additional information available.

#### **SECTION 10.- STABILITY AND REACTIVITY**

10.1 Reactivity None known, based on information available.10.2 Chemical stability Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions** None under normal processing.

**10.4 Conditions to avoid**Avoid dust formation. Excess heat. Incompatible products.

10.5 Incompatible materials Strong oxidizing agents, halogens.
 10.6 Hazardous decomposition products None under normal use conditions.

#### SECTION 11.-TOXICOLOGICAL INFORMATION

### 11. 1. Information on toxicological effects

Oral LD<sub>50</sub>: Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg. Acute toxicity

Dermal LD<sub>50</sub>: Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

Mist LC<sub>50</sub>: Based on ATE data, the classification criteria are not met. ATE > 5 mg/l.

Name	LD <sub>50</sub> oral	LD <sub>50</sub> dermal	LC <sub>50</sub> inhalation
Sodium molybdate dihydrate	4 g/kg (rat)	Not listed	> 2,080 mg/m³ (rat) 4h

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation Causes eye irritation.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity ACGIH: A3

Reproductive toxicity No information available.

Specific target toxicity (single exposure)

Specific target toxicity (repeat exposure)

Aspiration hazard

No information available.

Potential adverse human health effects and symptoms 
The toxicological properties have not been fully investigated.

#### **SECTION 12. ECOLOGICAL INFORMATION**

#### 12.1 Toxicity

Do not empty into drains.

#### 12.2 Persistence and degradability

Sodium molybdate dihydrate (10102-40-6)	
Persistence and degradability	No information available.



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#### 12.3 Bioaccumulative potential

Sodium molybdate dihydrate (10102-40-6)

Bioaccumulative potential No information available.

12.4 Mobility in soil

No information available.

12.5 Other adverse effects

**Other information** No known significant effects or critical hazards.

#### SECTION 13.- DISPOSAL CONSIDERATIONS

#### 13.1. Waste treatment methods

Waste disposal recommendations

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Ecology-waste materials

Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. Care should be taken when handling empty containers that have not been cleaned or rinsed.

#### **SECTION 14.- TRANSPORT INFORMATION**

14.1.UN numberNot regulated.14.2. UN proper shipping nameNot regulated.

14.3. Additional information

Other information Not regulated.

Overland transport Not regulated.

Transport by sea Not regulated.

Air transport Not regulated.

#### **SECTION 15.- REGULATORY INFORMATION**

**US Federal regulations** 

TSCA 12(b) Not applicable SARA 313 Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act)

Clean Air Act

OSHA

Not applicable

Not applicable



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**CERCLA** Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations Not applicable

**U.S. Departament of Transportation** 

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security** 

This product does not contain any DHS chemicals.

**Other International Regulations** 

Mexico - Grade No information available

#### **SECTION 16.- OTHER INFORMATION**

NFPA NFPA health hazard 2 NFPA fire hazard 1 NFPA instability hazard 0 NFPA Special hazard

HMIS III Health 2 Flammability 1 Physical 0 Personal Protection E

**E** Safety glasses, gloves and dust respirator.

None.

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Other information:

Made for:





IMPORTANT NOTE: Information in this SDS is from available published sources and is believed to be accurate, but is not exhaustive and will be used only as a guide, which is based on current knowledge of the chemical substance or mixture and apply to the appropriate product for safety precautions. No warranty, express or implied, is made and Pima Chemicals & Fertilizers, LLC and Quimica Pima, S.A. de C.V. assumes no liability resulting from the use of this SDS. The user must determine suitability of this information for his application.

End of Safety Data Sheet