



SAFETY DATA SHEET

According to 29 CFR 1910.1200

ALUMINUM SULFATE IRON FREE

Date of issue: September 01, 2023 Revision date: - Version: 1

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

1.1 Product identifier

Product form Solid
Substance name Aluminum sulfate iron free
CAS No. 10043-01-3
Formula $Al_2(SO_4)_3$
Synonyms -

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

Química Pima, S.A. de C.V.
Del Cobre 20, Parque Industrial Hermosillo
Hermosillo, Sonora, México. C.P. 83297 Tel. 011 (662) 251-0010 / (662) 251-0316
ventas@qpima.com
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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

May be corrosive to metals	1	H290
Causes serious eye damage	1	H318
Very toxic to aquatic life.	1	H400
Toxic to aquatic life with long-lasting effects.	2	H411

2.2 Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



Signal Word (GHS-US):

Danger

Hazard statement (GHS-US):

H290 May be corrosive to metals
H318 Causes serious eye damage.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long-lasting effects.

Precautionary statements (GHS-US):

P234 Keep only in original container.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection



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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.

P310 Immediately call a POISON CENTER or doctor/physician.

P391 Collect spillage.

P501 Dispose of contents/container following federal, state, and local regulations.

2.3 Other hazards

The material is not corrosive when dry; it is moderately corrosive when dissolved in water.

2.4 Unknown acute toxicity (GHS-US)

Not applicable

SECCIÓN 3.- COMPOSITION / INFORMATION OF INGREDIENTS

3.1 Substance

Not applicable

3.2 Mixture

Name	Product identifier	%
Aluminum sulfate	(CAS No.) 10043-01-3	99
Water	(CAS No.) 7732-18-5	1

SECCIÓN 4.- FIRST AID MEASURE

4.1 Description of first aid measure

First-aid measures general

Check vital signs. Unconscious: keep airways clear and provide breathing assistance. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform CPR. Conscious victim with breathing difficulty: semi-upright position. Victim in shock: lying on back with legs slightly elevated. Vomiting: prevent choking or aspiration. Avoid cooling by covering the victim (without heating). Continue monitoring the victim. Provide psychological support. Keep the victim calm, and avoid physical strain. Depending on the victim's condition: seek medical attention/hospital. Never give anything by mouth to an unconscious person. If feeling unwell, seek medical attention (if possible, show the label).

First-aid measures after eye contact

Immediately flush eyes with water for at least 20 minutes, and keep eyelids open to ensure rinsing of the entire eye and eyelid tissues. Rinsing eyes within seconds is essential for maximum effectiveness. If wearing contact lenses, remove them after the first 5 minutes and then continue rinsing your eyes. Consult a physician.

First-aid measures after skin contact

Thoroughly wash the exposed area for at least 20 minutes. Remove contaminated clothing. Launder contaminated clothing before reuse. Get medical attention if irritation persists.

First-aid measures after inhalation

Move the victim to fresh air and provide clean air. Keep them calm. If not breathing, administer artificial respiration. If experiencing difficulty breathing, provide oxygen. Call for medical assistance.

First-aid measures after ingestion

Do not induce vomiting. Rinse mouth, and give water to drink. Never give anything orally to an unconscious person. Call for medical assistance. If vomiting occurs spontaneously, place the victim on their side to reduce the risk of aspiration.

4.2 Most important

Symptoms/injuries after inhalation

Inhalation of vapors irritates the tissues of the nose, throat, and lungs, leading to sore throat, difficulty breathing, chest tightness and pain, and coughing.



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Symptoms/injuries after skin contact	Contact with the skin irritates.
Symptoms/injuries after eye contact	Contact with the eyes can cause irritation.
Symptoms/injuries after ingestión	Ingestion of large amounts can cause gastrointestinal irritation.
Chronic symptoms	No data available

4.3 Indications of any immediate medical attention and special treatment needed

If exposed, concerned, or if symptoms persist, obtain medical attention/advice. If medical advice is necessary, have the product container or label on hand.

SECCIÓN 5.- FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media Use dry chemical powder, foam, sand, or CO₂. Use the product according to surrounding materials.

Unsuitable extinguishing media DO NOT USE direct water streams.

5.2 Special hazard arising from the substance or mixture

Fire hazard In case of fire, it may release smoke and irritating and/or toxic gases, such as sulfur oxides and other substances derived from incomplete combustion.

Explosion hazard The product and its packaging, when burning in enclosed spaces for long periods, can produce amounts of carbon monoxide that reach the lower explosive limit

Reactivity Not available

5.3 Advice for firefighters

Precautionary measures fire In case of fire/heating: stand against the wind. If exposed to fire/heat consider evacuation

Firefighting instructions Spray packaging with water to prevent ignition if they are exposed to excessive heat or fire. Remove the packaging if they have not yet been reached by flames, and you can do so safely. Cool the packaging with water long after the fire has been extinguished, removing any remnants until all embers are eliminated. Prevent water used for firefighting or dilution from entering watercourses, drains, or springs.

Protection during firefighting Use a self-contained breathing apparatus. Structural firefighter protective clothing provides limited protection in FIRE incidents ONLY; it may not be effective in SPILL situations.

SECCIÓN 6.- ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures

6.1.1 For non-emergency personnel

Protective equipment Use a self-contained breathing apparatus and dermal and ocular protection. Wear impermeable protective gloves.

Emergency procedures Avoid ignition sources. Evacuate personnel to a ventilated area. Do not allow the spilled product to be reused.

Measures in case of dust release Ventilate immediately, especially in low-lying areas where vapors may accumulate.

6.1.2 For emergency responders

Where specialized garments are required to manage the spill/leak, refer to any information in Section 8 regarding suitable and unsuitable materials. Keep the area ventilated.

6.2 Environmental precautions

Avoid release to the environment. Do not allow the product to spread into the environment. Do not discharge into drains or rivers.

6.3 Methods and material for containment and cleaning up



Method for containment

Method for cleaning up

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Contain and collect any contaminated material. Avoid runoff into sewers, waterways, or disposal in areas where surface or groundwater may be affected.

Gather the product with a shovel and place it in a suitable container. Sweep or vacuum, avoiding the dispersion of dust. It may be necessary to moisten it slightly. Clean or wash the contaminated area thoroughly. Dispose of the water and collected residue in containers labeled for disposal as chemical waste.

6.4 Reference to other sections

For further information refer to section 8: Exposure-controls/personal protection

SECTION 7.- HANDLING AND STORAGE

7.1 Precautions for safe handling

Precautions for safe handling

Avoid contact with skin and eyes. Prevent the formation of dust. Provide adequate ventilation in areas where dust may form. Keep away from ignition sources. Do not smoke. Stay away from heat and ignition sources. Normal measures for fire prevention protection. Avoid the accumulation of static charges.

Hygiene measures

Do not drink, eat, or smoke in the workplace. Always wash your hands after handling the product. Do not eat, drink, or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store only in the original container in a cool, well-ventilated area, away from incompatible materials. Keep the container tightly closed when not in use. Avoid using carbon steel.

Incompatible products

Strong oxidizing agents, acids, and bases.

Heat-ignition

Not available

Storage area

Store this substance in a cool, dry, well-ventilated place and away from incompatible materials. Meet the legal requirements.

Special rules on packaging

SPECIAL REQUIREMENTS: closing. Dry. Correctly labeled. Meet the legal requirements. Secure fragile packaging in solid containers.

Packaging materials

Avoid using carbon steel. Keep in original container.

7.3 Specific end use(s)

No additional information is available

SECTION 8.- EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Aluminum sulfate 10043-01-3	Not available	Not available	Not available

8.2 Exposure controls

Appropriate engineering controls

The sources of eye wash stations and safety showers should be available near the use/handling area. Provide exhaust ventilation or other engineering controls to maintain vapor concentrations below applicable occupational exposure limits. It is recommended that all vapor control equipment such as local ventilation and material transport systems involved in handling this product contain explosion relief vents an explosion suppression system or an oxygen-deficient atmosphere. Ensure that vapor handling systems are designed to prevent vapor escape into the work area.



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Personal protective equipment	Safety goggles, gloves, coverall, and dust mask.
Material for protective clothing	PVC suits, and neoprene or PVC gloves. Cotton coverall. Plastic safety gloves.
Hand protection	Neoprene or PVC gloves.
Eye protection	Use plastic safety goggles.
Skin and body protection	Cotton coverall, and neoprene or PVC gloves.
Respiratory protection	A dust mask is recommended.
Environmental exposure controls	Avoid release to the environment.

SECTION 9.- PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Solid
Appearance	Granular solid or powder
Odor	Odorless
Color	White to light brown
Molecular mass	594.14 g/mol
Odor threshold	No data available
pH	No data available
pH solution	No data available
Relative evaporation rate (butyl acetate = 1)	No data available
Melting/Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Self-ignition temperature	No data available
Decomposition temperature	> 650 °C
Flammability (solid, gas)	Non-flammable
Vapor pressure	No data available
Relative vapor density at 20 °C	No data available
Relative density	0.8 – 1.2 at 20 °C
Bulk density	992 kg/m ³
Solubility	45% in water at 20 °C
Log Pow	No data available
Log Kow	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Explosive limits	No data available

9.2 Other information

Corrosive to metals.

SECTION 10.- STABILITY AND REACTIVITY

10.1 Reactivity	No reactions or product decompositions are expected under normal storage conditions.
10.2 Chemical stability	Stable under recommended storage conditions.



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10.3 Possibility of hazardous reactions	None under normal conditions of use.
10.4 Conditions to avoid	Avoid high temperatures. Protect from moisture. Storage with strong alkalis or oxidizing agents should be avoided.
10.5 Incompatible materials	Strongly oxidizing agents. Reacts with alkalis and attacks many metals in the presence of water.
10.6 Hazardous decomposition products	Sulfur oxides, aluminum oxide. The solution in water is a strongly acidic medium.

SECTION 11.- TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Likely routes of exposure	Skin and eyes contact, inhalation, and ingestion.
Acute toxicity	It can cause irritation.
Skin corrosión/irritation	It causes skin irritation.
Serious eye damage/irritation	It causes eye irritation.
Respiratory or skin sensitization	It can irritate the respiratory tract, nausea, and headache.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Not classified.
Reproductive toxicity	Not classified.
Specific target toxicity (single exposure)	It may cause respiratory irritation.
Specific target toxicity (repeat exposure)	Frequent ingestions may lead to phosphorus deficiency, resulting in bone weakening.
Aspiration hazard	Irritates the respiratory tract. Symptoms may include coughing, and difficulty breathing.

Name	LD ₅₀ oral	LD ₅₀ dermal	LC ₅₀ inhalation
Aluminum sulfate	> 6207 mg/kg (rat)	> 1930 mg/kg (rabbit)	2 – 4 mg/L (rat, 4 h)

SECTION 12.- ECOLOGICAL INFORMATION

12.1 Toxicity

Ecology – General	Classification concerning the environment: not applicable.
Ecology – Air	Not classified as dangerous for the ozone layer.
Ecology – Water	LC50 (mosquito fish, OECD, 96 h): 235 mg/l EC50 (Daphnia magna, OECD, 48 h): 7.72 mg/l EC50 (Pseudokirchneriella subcapitata, OECD, 48 h): 25 mg/l EC50 (Tetrahymena pyriformis, OECD, 48 h): 0.5 mg/l EC50 (zebrafish, OECD, 14 d): 5.2 mg/l EC50 (Daphnia magna, OECD, 14 d): 0.55 mg/l

12.2 Persistence and degradability

Not applicable

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available



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12.5 Other adverse effects

Other information

It contains aluminum.

SECCIÓN 13.- INFORMACIÓN RELATIVA A LA ELIMINACIÓN DE LOS PRODUCTOS

13.1 Waste treatment methods

Waste treatment methods

Dispose of following national, state, and local regulations.

Waste disposal recommendations

Both the surplus product and empty containers must be disposed of following current legislation on Environmental Protection and particularly on Hazardous Waste. You must classify the waste and dispose of it through an authorized company. Disposal procedure: wastewater treatment or disposal in a landfill.

SECTION 14.- TRANSPORT INFORMATION

14.1 UN Number

3264

14.2 UN proper shipping name

CORROSIVE LIQUID, ACID, INORGANIC, N.E.P.

14.3 Class of hazards in transportation

8

14.4 Packaging group

III

14.3 Additional information



Other information

In the United States, it is possible to reclassify this material as non-regulated through surface transportation because its corrosivity is solely due to its effect on metals (steel or aluminum). See 49 CFR.173.154 (d). This product contains one or more ingredients identified as a substance in Appendix A of 49 CFR 172.101. The amount of product, in a package, that triggers the RQ requirements under 49 CFR for each hazardous substance is shown.

Overland transport

No additional information is available.

Transport by sea

No additional information is available.

Air transport

No additional information is available.

SECTION 15.- REGULATORY INFORMATION

International inventories

TSCA All are listed

TSCA – Toxic Substances Control Act Inventory Section 8(b).

DSL/NDSL - Domestic Substance List/Non-Domestic Substance List.

US Federal Regulations: Not listed in the Toxic Substances Control Act Inventory

SARA 311/312 Categories.

Acute Health Hazard Yes Chronic Health Hazard No Fire Hazard No

Sudden Hazardous Pressure Release No Reactive Hazard No

Clean Water Act. None of these chemicals are listed under the Clean Water Act.

CERCLA. None of the ingredients are listed.



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Official Mexican Standard NOM-002-SCT/2011, List of the most commonly transported hazardous substances and materials.

SECTION 16.- OTHER INFORMATION

NFPA	NFPA health Hazard	1	NFPA fire Hazard	0	NFPA instability Hazard	0	NFPA Special hazard	-
HMIS III	Health	1	Flammability	0	Physical	0	Personal protection	E

Safety glasses, gloves, and dust respirator

E



Made for: Química Pima, S.A. de C.V. Del Cobre No. 20 Parque Industrial. Hermosillo, Sonora, México. 83297.

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Revision note: -

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 applied 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 the suitability of this information for his application.

End of Safety Data Sheet