

Shanghai Intco Medical Supply Co., Ltd

Safety Data Sheet

Section 1: Identification

Product Name: Ammonium Nitrate Ice Pack

CAS Number: 6484-52-2

Product Use: cold therapy

Manufacturer/Supplier: Shanghai Intco Medical Supply Co., Ltd

Address: 1358, Hubin Road, Fengxian District, Shanghai, China

General Information: 021-57456868

Transportation Emergency Number: +86-021-57456868

Section 2: Hazard(s) Identification

GHS Classification:

Not a dangerous substance according to GHS

GHS Label:

Symbols: flame, skull and crossbones, corrosion, health hazard	
Hazard Statements	Precautionary Statements
None	None

Section 3: Composition/Information on Ingredients

Component	CAS Number	Weight %
Ammonium Nitrate	6484-52-2	30~70
Water	7732-18-5	30~70
(See Section 8 for Exposure Limits)		

Section 4: First-Aid Measures

Eye: Eye irritation. Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get immediate medical attention if necessary.

Skin: Immediately flush the skin with plenty of water while removing contaminated clothing and shoes. Get immediate medical attention if necessary. Wash contaminated clothing before reuse.

Inhalation: move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. Get medical attention if necessary.

Ingestion: Get immediate medical attention. Do not induce vomiting unless directed by medical personnel.

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media: Use dry chemical, foam, or carbon dioxide to extinguish fire. Water may be ineffective but should be used to cool fire-exposed containers, structures and to protect personnel. Use water to dilute spills and to flush them away from sources of ignition.

Fire Fighting Procedures: Exposed firefighters must wear NIOSH-approved positive pressure self-contained breathing apparatus with full-face mask and full protective clothing.

Combustion Products: Irritating or toxic substances may be emitted upon thermal decomposition. Thermal decomposition products may include oxides of carbon and nitrogen.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to a federal/national or local reporting requirements.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and keep in suitable, closed containers for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste or clean up materials in accordance with local regulations. Containers, even when empty, will retain residue and vapors.

Section 7: Handling and Storage

Handling Procedures

All employees who handle Magnesium Sulfate should be trained to handle it safely. Do not breathe dust. Avoid all contact with skin and eyes. Use this product only with adequate ventilation. Wash thoroughly after handling.

Storage Procedures

Keep container tightly closed when not in use. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Keep containers closed--material is hygroscopic. Material should be stored in secondary containers or in a diked area, as appropriate. Store containers away from incompatible chemicals (see Section 10, Stability and Reactivity). Storage areas should be made of fire-resistant materials. Post warning and "NO SMOKING" signs in storage and use areas, as appropriate. Use corrosion-resistant structural materials, lighting, and ventilation systems in the storage area. Floors should be sealed to prevent absorption of this material. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged. Have appropriate extinguishing equipment in the storage area (i.e., sprinkler system, portable fire extinguishers).

Empty containers may contain residual particulates; therefore, empty containers should be handled with care. Never store food, feed, or drinking water in containers which held this product. Keep this material away from food, drink and animal feed. Do not store this material in open or unlabeled containers. Limit quantity of material stored. Wipe down area of use periodically to avoid the accumulation of dusts

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Avoid welding on pipes or tanks which have contained ammonium nitrate solution until they have been thoroughly washed out with water. Residual ammonium nitrate may explode under conditions of organic contamination, confinement, and high temperature. Avoid containers, piping or fittings made of brass, bronze, other copper containing alloys or galvanized metal. Do not run pumps with the discharge valve or suction valve closed, pump must be on circulation.

Personal Protection:

Eye Protection: Wear chemical safety goggles. Do not wear contact lenses.

Protective Clothing: Wear rubber gloves and protective clothing if there is prolonged or repeated contact with liquid.

Respiratory Protection:

Respirators are not required for normal ventilation. If a misty condition prevails due to heat spraying or agitation, a mist respirator approved by NIOSH should be worn. If heated to decomposition or in fire situation, utilize a self-contained breathing apparatus.

Other Protective Clothing or Equipment: Provide safety shower/eye wash facility at sites of handling or storage.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid. (white granular solid. Deliquescent solid.)

Odor: Odorless.

Taste: Not available.

Molecular Weight: 80.05 g/mole

Color: Not available.

pH (1% soln/water): 4.5 - 6.0 @ 25 deg. [Acidic.]

Boiling Point: Decomposition temperature: 210°C (410°F)

Melting Point: N/A

Critical Temperature: Not available.

Specific Gravity: 1.725 (Water = 1)

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water, methanol, acetone.

Solubility: Easily soluble in cold water, hot water. Soluble in acetone. Partially soluble in methanol. Insoluble in diethyl ether.

Section 10: Stability and Reactivity

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Incompatible materials

Incompatibility with various substances: Reactive with reducing agents, combustible materials, organic materials, metals, alkalis.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity:

Also incompatible with finely powdered metals (aluminum, copper, chromium, iron, zinc brass, nickel, lead, manganese, magnesium, antimony), acetic acid, ammonium chloride, phosphorus, sodium perchlorate, sulfur, bismuth, cadmium, chlorides, cobalt, potassium and ammonium sulfate, sodium, sodium hypochlorite, sodium-potassium alloy, organic materials and combustible materials (paper, oil, charcoal, etc.)

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Significant Routes of Exposure: Eyes, Digestive System, Respiratory System, Skin

Toxicity to Animals:

Acute Oral Toxicity: (rat) LD₅₀ = 2,800 – 4,500 mg/kg bw.

Acute Inhalation Toxicity: 4-h: (rat) LC₅₀ = >88.8 mg/L.

Acute Toxicity: Other Routes: Minimum lethal dose (rat): 0.065mg NH₄NO₃-N.

Acute Dermal Toxicity: (Sprague-Dawley rat, albino) LD₅₀ = > 5,000 mg/kg.
Repeated Dose Toxicity: Inhalation: 2 weeks: NOAEL(rat) 185 mg/m³. Inhalation: 4 weeks: NOAEL = 1 mg/m³.
Eye & Skin Irritation/Corrosion: Skin Irritation/Corrosion: 48 hr (rabbit) : Moderately irritating

Special Remarks on Toxicity to Animals: Not found to be toxic by oral, dermal and inhalation exposure as defined by OSHA

Developmental Toxicity/Teratogenicity: Not teratogenic to rats at 57 mg/kg bw (NOAEL > 57mg/kg/day).

Product Name: Ammonium Nitrate Solution

Bacterial Genetic Toxicity In-Vitro: GeneMutation:

(*Salmonella typhimurium*): Bacterial reverse mutation assay: Negative

Non-Bacterial Genetic Toxicity In-Vitro: Chromosomal Aberration: No data available

Toxicity to Reproduction: No data available

Carcinogenicity: No data available

Other Effects on Humans: No other effects known.

Special Remarks on Chronic Effects on Humans

Large amounts, 15 to 25 grams, may have serious or even fatal effects. Small repeated doses may lead to weakness, general depression, headache and mental impairment. Symptoms of over exposure, acute cyanosis, nausea, vertigo, collapse, vomiting/abdominal pain, and tachycardia (rapid heartbeat), coma, convulsion and death can occur.

Special Remarks on Other Effects on Humans: No other effects known.

Section 12: Ecological Information* (non-mandatory)

EPA Ecological Toxicity rating :

Acute Toxicity to Fish:

(*Cyprinus carpio* L): 48-h: LC₅₀= 1.15 – 1.72 mg un-ionized NH₃/L;

(Chinook Salmon, rainbow trout, bluegill) 96-h: LC₅₀= 420 – 1360 mg NO₃/L

Chronic Toxicity to Fish: No data available

Acute Toxicity to Aquatic

Invertebrates: (*Daphnia magna*) EC₅₀ = 555 mg/L

Chronic Toxicity to Aquatic

Invertebrates:

(*Bullia digitalis*) Up to 7 days: NOEC = 300 mg/L. Based on the standard Federal Insecticide Fungicide and Rodenticide Act (FIFRA) acute toxicity ratings for fish and Daphnia, the compounds in this category are considered practically non-toxic.

Ammonium nitrate is a plant nutrient; however, large spills can kill vegetation. It should be reported to the proper authorities.

Acute Toxicity to Aquatic Plants: No data available

Toxicity to Soil Dwelling Organisms: No data available

Toxicity to Terrestrial Plants: No data available

Stability in Water: Stable to hydrolytic degradation.

Stability in Soil:

Ammonium ions bind to clay particles and leach slowly or not at all to ground water, whereas the nitrate can leach significantly. Monitoring Data: NH₄ background: 0.01 - 10mg N/L. NO₃ background: 0.3 - 100 mg N/L.

Transport and Distribution:

Transport: Worldwide loss after application 0.004 - 1.2 Tg/yr. Distribution: 0.251% to air; 45.4% to water; 54.2% to soil; 0.0757% to sediment.

Toxicity: No data available

Section 13: Disposal Considerations* (non-mandatory)

Product Disposal: If uncontaminated, recover and reuse as product. Consult federal, state and local environmental agencies for acceptable disposal procedures.

General Comments:

Users of this product should review their operations in terms of applicable federal, state and local laws and regulations, then consult with appropriate regulatory agencies before discharging or disposing of waste material.

Section 14: Transport Information* (non-mandatory)

	USDOT	TDG - Canada
Proper Shipping Name:	Ammonium Nitrate, Liquid	Ammonium Nitrate, Liquid
Hazard Class:	5.1	5.1
Identification Number:	UN2426	UN2426
Packing Group (Technical Name):	II	II
Labeling / Placarding:	Oxidizer	Oxidizer
Authorized Packaging:	Rail: DOT 103, 104, 105, 109, 111, 112, 114 or 115, 120 fusion-welded tank car tanks; and Class 106 or 110 multi-unit tank car tanks. Trucks: MC 307, 312, DOT 407, 412	
Notes:	<p>US: Only Ammonium Nitrate liquids with concentrations of 65% or greater need to be placarded. Solutions shipped at 212 – 240°F must also be placarded "HOT". ("HOT" notation must proceed the proper name on shipping papers). Maximum loading temperature is 240°F.</p> <p>Canada: Only Ammonium Nitrate liquids with concentrations of 65% or greater need to be placarded. Solutions shipped at 212 – 240°F must also be placarded "HOT". Maximum loading temperature is 240°F.</p>	

Section 15: Regulatory Information* (non-mandatory)

UNITED STATES: SARA Hazard Category:	<p>This product has been reviewed according to the EPA Hazard Categories promulgated under Section 311 and 312 of the Superfund Amendment and reauthorization Act of 1986 (SARA title III) and is considered, under applicable definitions, to meet the following categories:</p> <table style="width: 100%;"> <tr> <td>Fire:</td><td>No</td> <td>Pressure Generating:</td><td>No</td> <td>Reactivity:</td><td>No</td> <td>Acute:</td><td>Yes</td> <td>Chronic:</td><td>No</td> </tr> </table> <p>40 CFR Part 355 - Extremely Hazardous Substances: None</p> <p>40 CFR Part 370 - Hazardous Chemical Reporting: Applicable</p> <p>All intentional ingredients listed on the TSCA inventory.</p>	Fire:	No	Pressure Generating:	No	Reactivity:	No	Acute:	Yes	Chronic:	No																					
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SARA Title III Information:	<p>This product contains the following substances subject of the reporting requirements of Title III (EPCRA) of the Superfund amendments and Reauthorization Act of 1986 and 40 CFR Part 372:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Chemical</th> <th rowspan="2">CAS NO.</th> <th rowspan="2">Percent by Weight</th> <th rowspan="2">CERCLA RQ (lbs)*</th> <th colspan="3">SARA (1986) Reporting</th> </tr> <tr> <th>311</th> <th>312</th> <th>313</th> </tr> </thead> <tbody> <tr> <td>Ammonium Nitrate</td> <td>6484-52-2</td> <td>40-87</td> <td>See note ⁽¹⁾</td> <td>Yes</td> <td>Yes</td> <td>See Note ⁽²⁾</td> </tr> <tr> <td>Aqueous Ammonia</td> <td>1336-21-6</td> <td>8.51-18.59</td> <td>NA</td> <td>NA</td> <td>NA</td> <td>Yes</td> </tr> <tr> <td>Nitrate Compounds</td> <td>N/A</td> <td>31.0-67.49</td> <td>NA</td> <td>NA</td> <td>NA</td> <td>Yes</td> </tr> </tbody> </table> <p>⁽¹⁾ This product is not an EPA Hazardous Substance per 40 CFR 116-117. Ammonium Nitrate Solutions contain alkalinity as high as 0.5% by weight (as ammonia). Any spill that exceeds 97,000 lbs. may exceed the 1000 lb. RQ for ammonium hydroxide.</p> <p>⁽²⁾ Ammonium Nitrate contains aqueous ammonia and water dissociable nitrate compounds subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986.</p>	Chemical	CAS NO.	Percent by Weight	CERCLA RQ (lbs)*	SARA (1986) Reporting			311	312	313	Ammonium Nitrate	6484-52-2	40-87	See note ⁽¹⁾	Yes	Yes	See Note ⁽²⁾	Aqueous Ammonia	1336-21-6	8.51-18.59	NA	NA	NA	Yes	Nitrate Compounds	N/A	31.0-67.49	NA	NA	NA	Yes
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CERCLA/Superfund, 40 CFR Parts 117, 302:	<p>if this product contains components subject to substances designated as CERCLA reportable Quantity (RQ) Substances, it will be designated in the above table with the RQ value in pounds. If there is a release of RQ Substance to the environment, notification to the National response Center, Washington D.C. (1-800-424-8802) is required.</p>																															
CANADA:	<p>WHMIS Hazard Symbol and Classification: This product is WHMIS controlled.</p> <p>Ingredient Disclosure List: Category C.D2b This product does contain ingredient(s) on this list.</p> <p>Environmental Protection: All intentional ingredients are listed on the DSL (Domestic Substance List).</p>																															
EINECS#:	(Ammonium Nitrate) 229-347-8																															
California: Prop 65:	This is not a chemical known to cause cancer, nor is it listed.																															

Section 16: Other Information

Other Information

Shanghai Intco Medical Supply Co., Ltd. ("Intco Medical") shall not be responsible for the use of any information, product, method, or apparatus herein presented ("Information"), and you must make your own determination as to its suitability and completeness for your own use, for the protection of the environment, and for health and safety purposes. You assume the entire risk of relying on this Information. In no event shall Intco Medical be responsible for damages of any nature whatsoever resulting from the use of this product or products, or reliance upon this Information. By providing this Information, Intco Medical neither can nor intends to control the method or manner by which you use, handle, store, or transport Intco Medical products. If any materials are mentioned that are not Intco Medical products, appropriate industrial hygiene and other safety precautions recommended by their manufacturers should be observed. Intco Medical makes no representations or warranties, either express or implied of merchantability, fitness for a particular purpose or of any other nature regarding this information, and nothing herein waives any of Intco Medical conditions of sale. This information could include technical inaccuracies or typographical errors. Intco Medical may make improvements and/or changes in the product (s) and/or the program (s) described in this information at any time. If you have any questions, please contact us at Tel. +86-021-57456868 or E-mail us at hushuailing@intco.com.cn

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration;

WHMIS = Workplace Hazardous Materials Information System