

Material Safety Data Sheet

1. Chemical Product and Company Identification

Product name:	Product codes:
Kwik-Kold™ Kit	Catalog # 103
Kwik-Kold™ Bulk	Catalog # 103B
Instant Cold Large	Catalog # 11440-012
Instant Cold Small	Catalog # 11440-512
Nova + Instant Cold Small	Catalog # V11440-512
Instant Cold Medium	Catalog # 11445-020
Nova + Instant Cold Medium	Catalog # V11445-020
Instant Ice Cold Pack	Catalog # 11440-900
Nova + Instant Cold Large	Catalog # V11440-012
Jack Frost 6"X8.75" Disposable Instant Cold Pack	Catalog # 10104
Jack Frost 4.5"X5.5" Disposable Instant Cold Pack	Catalog # 10407
Jack Frost 4.5"X5.5" Disposable Instant Cold Pack	Catalog # 10450
Jack Frost 6"X8.75" Reusable Insulated Cold Pack	Catalog # 20104
Jack Frost 6"X8.75" Reusable Insulated Cold Pack	Catalog # 20116
Jack Frost 4.5"X7" Reusable Insulated Cold Pack	Catalog # 20204
Jack Frost 4.5"X7" Reusable Insulated Cold Pack	Catalog # 20224
Jack Frost 4.5"X7" Reusable Insulated Cold Pack	Catalog # 20232
Jack Frost 4.5"X9.5" Reusable Insulated Cold Pack	Catalog # 20304
TIDI 6"x8.75" Reusable Insulated Cold Pack	Catalog # 2104 TIDI
TIDI 6"X8.75" Disposable Instant Cold Pack	Catalog # 1104 TIDI
Boundtree 6"X8.75" Instant Cold Pack	Catalog # 954299
Nova+ Insulated Instant Cold Pack	Catalog # V20104
Instant Cold 6"X8.75"	Catalog # ICL24
Instant Cold 4.5"X5.5"	Catalog # ICS80

Description: A waterproof package containing small white ammonium nitrate pellets surrounding a small rupturable plastic bag filled with water. When the water and pellets mix, the liquid becomes cold.	Product Use: Pack used for temporary temperature maintenance.	User code/identification:
Manufacturer: Cardinal Health 1430 Waukegan Road McGaw Park, IL 60085 USA Telephone: 1-800-964-5227 (Customer Service 8 am-4: 30 pm; CST M-F)		For emergency information contact: CHEMTREC 1-800-424-9300

2. Composition/Information on Ingredients

Component (synonym)	CAS No.	Exposure Limit*
Water	7732-18-5	None
Ammonium nitrate	6484-52-2	None

*Limit established by ACGIH or OSHA.

Material Safety Data Sheet

3. Hazards Identification

Emergency Overview:

Instant cold upon mixing of components/ingredients.

If packaging is broken, direct contact with solution may be irritating to the skin, eyes, throat, and mucous membranes. Ingestion may cause vomiting, stomach upset, and gastritis.

Potential Health Effects:

Eye contact:	Unlikely under normal conditions of handling or usage. Direct contact with solution may be irritating to the skin.
Ingestion:	Unlikely under normal conditions of handling or usage. May cause vomiting, stomach upset, gastritis (stomach inflammation), metabolic acidosis, diuresis (increased urination), vasodilatation, and methemoglobinemia.
Inhalation:	Unlikely under normal conditions of handling or usage. Inhalation of solution may be irritating to mucus membranes.
Skin contact:	Unlikely under normal conditions of handling or usage. Direct contact with solution may be irritating to the skin.
Carcinogen status:	OSHA: Not listed. NTP: Not listed. IARC: Not listed.
Medical conditions aggravated by exposure:	Kidney or intestinal dysfunction.
Potential physical effects:	Ammonium nitrate pellets, prior to mixing, may explode from heat or contamination, can accelerate burning when involved in a fire, can react explosively with hydrocarbons.

4. First Aid Measures

Eye contact:	Flush with large amount of water for at least 15 minutes. If redness or irritation occurs, seek medical attention.
Ingestion:	Seek medical attention. Never give anything by mouth to an unconscious person. If patient is alert, dilute with 4 to 8 ounces of water or milk. Since ammonium nitrate has some irritative effects on the gastrointestinal tract, removing the material immediately by gastric lavage may be preferable to inducing vomiting with syrup of ipecac, which often takes at least 20 minutes to act.
Inhalation:	Nonvolatile liquid. Remove person to fresh air. If breathing is difficult, give oxygen and get medical attention. If person is not breathing, administer artificial respiration or CPR and get medical attention.
Skin contact:	Remove contaminated clothing, wash the effected area with mild detergent and water. Flush area with water for at least 15 minutes. If redness or irritation occurs, seek medical attention.

Material Safety Data Sheet

5. Fire Fighting Measures

Nonflammable solution. Ammonium nitrate pellets, prior to mixing, may explode from heat or contamination, can accelerate burning when involved in a fire, can react explosively with hydrocarbons.

6. Accidental Release Measures

Small spills can be taken up with an absorbent and placed in clean dry containers for later disposal.

This product is a non-hazardous waste when spilled or disposed of, as defined in Resource Conservation Recovery Act (RCRA) regulations (40 CFR 261).

7. Handling and Storage

Store under the following conditions:

Store at room temperature (not to exceed 104°F/40°C). Protect from freezing.

8. Exposure Controls/Personal Protection

Eye protection:	If waterproof packaging is broken, wear safety glasses.
Gloves:	If waterproof packaging is broken, use Latex or other impervious gloves.
Respiratory Protection:	No respiratory protection needed under normal conditions of handling and use.
Skin Protection:	No skin protection needed under normal conditions of handling and use.
Ventilation:	No ventilation should be required under normal conditions of handling and use.
Exposure guidelines or limits:	No occupational exposure limits established by ACGIH or OSHA.

9. Physical and Chemical Properties

Appearance:	Clear to off white liquid packaged in a waterproof container.
Boiling point:	Not established.
Freezing point:	Not established.
Vapor pressure:	Not established.
Specific gravity:	Not established.
Solubility in water:	Soluble.
pH:	3.0 (solution).

10. Stability and Reactivity

Hazardous polymerization:	Not reported to occur under normal temperatures and pressures.
Reactivity:	Yes, instant cold upon mixing of ingredients. Ammonium nitrate pellets, prior to mixing, react violently with reducing agents, strong acids, powdered metals, and organic materials.

Material Safety Data Sheet

Incompatibilities
(specific materials to avoid): Strong acids, nitrate salts, chloride salts, metal salts, alkali metals, powdered metals, hydrocarbon oils.

Decomposition products: Thermal decomposition may release toxic and/or hazardous gases. Highly toxic oxides of nitrogen, including ammonia are produced during combustion of ammonium nitrate.

11. Toxicological Information

Acute Toxicity The following toxicology information is for pure Ammonium nitrate
LD₅₀ Oral, Rat: 4500 mg/kg
LD₅₀ Dermal, Rabbit: 3000 mg/kg
Inhalation, Human: Irritating to mucus membranes
Oral, Livestock: 400 mg/L toxic limit
Irritating to eyes, nose, and throat, and mucous membranes (HSDB)

Acute Effects

Inhalation Unlikely under normal conditions of handling or usage. Inhalation of solution may be irritating to mucus membranes

Ingestion Unlikely under normal conditions of handling or usage. May cause vomiting, stomach upset, gastritis (stomach inflammation), metabolic acidosis, diuresis (increased urination), vasodilatation, and methemoglobinemia.

Skin Unlikely under normal conditions of handling or usage. Direct contact with solution may be irritating to the skin.

Eyes Unlikely under normal conditions of handling or usage. Direct contact with solution may be irritating to the eyes.

Chronic Effects

Carcinogenic Effects OSHA: Not listed.
NTP: Not listed.
IARC: Not listed.

12. Ecological Information

Environmental impact rating (0-4):	No data
Acute aquatic toxicity:	No data for chemical mixture
Degradability:	Yes
Log bioconcentrations factor:	Data not available
Log octanol/water partition coefficient:	No data

Material Safety Data Sheet

13. Disposal Considerations

Reprocess or burn in an approved incinerator
Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Please be advised, however, that state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations.

14. Transport Information

DOT Hazardous Material regulations (both ground and air transportation) do apply to this product.

Transportation and Hazardous Materials Description:

DOT shipping name:	Consumer Commodity*
DOT Hazard Class:	ORM-D*
UN/NA Number:	Not applicable
Product RQ (lbs):	Not applicable
DOT label:	Not applicable
DOT Placard	Not applicable
Product label:	Not applicable

*Not an acceptable classification when using IATA Dangerous Goods regulations.

15. Regulatory Information

Federal Regulatory Information:

CERCLA Section 103 (40 CFR 302.4), reportable quantity	Non-applicable
CERCLA/Superfund (40 CFR 117.302)	Non-applicable
OSHA Process Safety (29 CFR 1910.119)	Non-applicable

RCRA Status: If discarded in its used form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material contained in the product or derived from the product should be classified as a hazardous waste. If discarded in its purchased form, this product would be a hazardous waste by characteristic. (40 CFR 261.20-24)

SARA Section 302 (40 CFR 355.30), extremely hazardous substances	Non-applicable
SARA Section 304 (40 CFR 355.40)	Non-applicable

SARA Hazard categories, Title III sections 311 and 312 (40 CFR 370.21)	
Acute hazard	No
Chronic hazard	No
Fire hazard	No
Reactivity hazard	No
Sudden release hazard	No

SARA Section 313 (40 CFR 372.65), toxic chemicals	Ammonium Nitrate (solution)
TSCA status	Listed

State Regulatory Information:

California Proposition 65	Not on list
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Other states: May be more restrictive or otherwise different.

Material Safety Data Sheet

16. Other Information

Abbreviations:

CERCLA:	Comprehensive Environmental Response, Compensation and Liability Act. Administered by EPA.
HSDB:	Hazardous Substance Data Bank.
IARC:	International Agency for Research on Cancer.
NTP:	National Toxicology Program.
OSHA:	Occupational Safety and Health Administration, US Department of Labor which regulates workplace conditions.
RCRA:	Resource Conservation and Recovery Act. Administered by EPA.
SARA:	Superfund Amendments and Reauthorization Act of 1986. Title III is also known as the Emergency Planning and Community Right-to-Know Act. Administered by EPA.
TSCA:	Toxic Substances Control Act.

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