

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 |
|---------------------------|-------------|

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. |

CARDINAL HEALTH DISCLAIMER

Neither Cardinal Health nor any of its affiliates or subsidiaries assumes any legal responsibility for use or reliance upon this information. Final determination of suitability of any material for a particular use is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. It is the user's responsibility to determine the appropriate handling, disposal or open disposition for the material or emergency response actions in light of the condition of the material, applicable regulations and other circumstances.