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GLOSSARY

ACTIO MSDS ID: 434373

**View Section:**

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**Cramer Products, Inc.**

Cold Spray

**Patterson Companies, Inc.** Product Code(s):  
562875,7454,745412



**SECTION 1 : Chemical Product and Company Identification**

MSDS Name: Cold Spray  
 Manufacturer Name: Cramer Products, Inc.  
 Address:  
 153 W. Warren  
 Gardner, KS 66030

Business Phone: 913- 856-7511  
 For information in North America, call: 913- 856-7511  
 Manufacturer MSDS Revision Date:  
 November 29, 2001

Trade Names:  
 Not Applicable

Synonyms:  
 Not Applicable

Chemical Family: Mixture  
 Chemical Formula: Proprietary Formula



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**SECTION 2 : Hazardous Ingredients/Identity Information**

Chemical Name	CAS#	Percent	
n-Butane	106-97-8	40 - 45%	

ACGIH TLV TWA: 800 ppm

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Chemical Name	CAS#	Percent	
Isopentane	78-78-4	35 - 40%	

ACGIH TLV TWA: 600 ppm

Chemical Name	CAS#	Percent	
1,1,1,2-Tetrafluoroethane	811-97-2	15 - 20%	

ACGIH TLV TWA: 1,000 ppm

Chemical Name	CAS#	Percent	
Isopropyl Alcohol	67-63-0	< 2%	

OSHA PEL TWA: 400 ppm



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### SECTION 3 : Physical And Chemical Characteristics

Physical State/Appearance:

Clear, Liquid

Color:

Colorless

Odor:

Slight ether odor

Vapor Density:

(Air = 1): &gt; 1.0

Boiling Point:

-15 deg - 160 deg F

Solubility:

In Water: Negligible

Specific Gravity:

(Water = 1): &lt; 1.0

Evaporation Point:

(BuAce = 1): &gt; 1

Percent Volatile:

By weight: 100%

FlashPoint:

&lt; -100 deg F (Estimated for n-Butane)

Upper Flammable Explosive Limit:

8.4% (for n-Butane)

Lower Flammable Explosive Limit:

1.8% (for n-Butane)

Pressure in can at 70 deg F: Approx. 48 psig



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#### **SECTION 4 : Fire And Explosion Hazards**

**Fire:**

Flammability Category: Flammable (Reference - Consumer Product Commission, flame projection test for aerosol products, per 16 CFR 1500.45)

**Flash Point:**

< -100 deg F (Estimated for n-Butane)

Upper Flammable or Explosive Limit: 8.4% (for n-Butane)

Lower Flammable or Explosive Limit: 1.8% (for n-Butane)

**Extinguishing Media:**

Dry Chemical, CO2, Foam

**Fire Fighting Instructions:**

Avoid possible accumulations of vapors at floor level, as vapor is heavier than air. Self-contained breathing apparatus and protective clothing should be worn in fighting fires involving chemicals.

**Unusual Fire Hazards:**

Avoid possible bursting of aerosol can. Do not store where temperature may exceed 120 deg F. Do not puncture or incinerate.



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#### **SECTION 5 : Health Hazards**

**Applies to All Ingredients:**

**Route of Exposure:**

Inhalation, skin contact

**Potential Health Effects:**

**Eye Contact:**

Untested

**Skin Contact:**

Untested May cause frostbite

**Inhalation:**

High concentrations of vapors is harmful and may cause heart irregularities, unconsciousness, or death. Intentional misuse or deliberate inhalation may cause death without warning. Vapor reduces oxygen available for breathing and is heavier than air.

**Carcinogenicity:**

None of the components in this material is listed by IARC, NTP, OSHA, or ACGIH as a carcinogen.

Suggested Exposure Guideline: 400 ppm



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### **SECTION 6 : Emergency And First Aid Procedures**

**Eye Contact:**

Flush eyes well with running water for 15 minutes.

**Skin Contact:**

Wash with soap and water after excessive contact. Remove soaked clothing to avoid prolonged skin contact. Treat for frostbite if necessary.

**Inhalation:**

Remove to fresh air. Artificial respiration, consult physician.

**Ingestion:**

Call Physician or poison control center immediately. Proper treatment is dependent on condition of patient and amount ingested.



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### **SECTION 7 : Reactivity Data**

**Chemical Stability:**

Stable

**Conditions to Avoid:**

Avoid all possible sources of ignition

**Hazardous Polymerization:**

Will not occur

**Hazardous Decomposition Products:**

Thermal decomposition products include Hydrogen Fluoride, Carbon Monoxide and Carbon Dioxide.



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### **SECTION 8 : Precautions For Safe Handling**



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### **SECTION 9 : Control Measures**

**Exposure Limits:**

Suggested Exposure Guideline: 400 ppm



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### **SECTION 10 : Other Information**

**MSDS Revision Date:**

November 29, 2001

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