



# Safety Data Sheet

## Section 1 – Identification of the Mixture and of the Company

### Product Identification

#### Primary Identifier(s) Used on the Label

Berryman *NON-CHLORINATED BRAKE PARTS CLEANER*

#### Product Synonym(s)

blend "5N-1"

#### Product Number(s)

2420C and 2421C

### Relevant Identified Uses and Uses Advised Against

#### Recommended Uses

brake and brake-related parts cleaning

#### Uses Advised Against

not for use in some applications

### Manufacturer/Supplier Details

Berryman Products, Inc.

3800 E Randol Mill Rd

Arlington, TX 76011

(800) 433-1704 (USA/Canada)

(817) 640-2376 (international)

www.BerrymanProducts.com

### Emergency 24-Hour Telephone Number(s) – InfoTrac, Inc.

(800) 535-5053 (USA/Canada)

(352) 323-3500 (international)

## Section 2 – Hazards Identification

### Classification of the Substance or Mixture (29 CFR 1910.1200)

#### Physical Hazards

Flammable Aerosol – Category 1

Gases Under Pressure – Compressed Gas

#### Health Hazards

Skin Irritant – Category 2

Eye Irritant – Category 2A

Specific Target Organ Toxicity - Single Exposure – Category 3 (narcotic effects)

Environmental Hazard - Acute – Category 3

### Allocation of Label Elements

#### Chemical Identity

Berryman *NON-CHLORINATED BRAKE PARTS CLEANER*

#### Pictograms



#### Signal Word

DANGER

**Hazard Statements**

H222 – Extremely flammable aerosol.  
 H280 – Contains gas under pressure; may explode if heated.  
 H315 – Causes skin irritation.  
 H319 – Causes serious eye irritation.  
 H336 – May cause drowsiness or dizziness.  
 H402 – Harmful to aquatic life.

**Prevention Precautionary Statements**

P101 – Keep out of reach of children.  
 P102 – Read label before use.  
 P210 – Keep away from heat, sparks, open flames, and hot surfaces. No smoking.  
 P211 – Do not spray on an open flame or other ignition source.  
 P251 – Pressurized container—do not pierce or burn, even after use.  
 P261 – Avoid breathing gas, mist, vapor, or spray.  
 P264 – Wash thoroughly with soap and water after handling.  
 P271 – Use only outdoors or in a well-ventilated area.  
 P273 – Avoid release to the environment.  
 P280 – Wear protective gloves, protective clothing, and eye or face protection.

**Response Precautionary Statements**

P321 – Specific treatment available in this document in “Section 4 – First Aid Measures.”  
 P302/P352 – IF ON SKIN: Wash with plenty of soap and water or shower.  
 P304/P340/P312 – IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call POISON CONTROL CENTER, hospital emergency room, or doctor if you feel unwell.  
 P305/P351/P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
 P332/P313 – If skin irritation occurs, get medical advice/attention.  
 P337/P313 – If eye irritation persists, get medical advice/attention.  
 P362/364 – Take off contaminated clothing and launder before reuse.

**Storage Precautionary Statements**

P405 – Store locked-up.  
 P410/P412 – Protect from sunlight. Do not expose to temperatures exceeding 122°F (50°C).

**Disposal Precautionary Statements**

P501 – Dispose of contents/container in accordance with local, regional, national, and international regulations, as applicable.

**Hazards Not Otherwise Classified**

none known

**Ingredients of unknown acute toxicity**

none

**Section 3 – Composition/Information on Ingredients**

<u>Component</u>	<u>CAS RN</u>	<u>Weight</u>
Acetone	67-64-1	80-90%
Isohexane	107-83-5	5-10%
Carbon Dioxide	124-38-9	3-6%

**Section 4 – First Aid Measures****Description of First Aid Measures****Ingestion**

Rinse mouth. Drink 1-2 glasses of milk or water. Call poison control center, hospital emergency room, or doctor if you feel unwell.

**Eye Contact**

Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

**Skin Contact**

Wash with plenty of soap and water or shower.

**Inhalation**

Remove person to fresh air and keep comfortable. If experiencing respiratory symptoms or if breathing is difficult, administer oxygen and call poison control center, hospital emergency room, or doctor.

**Most Important Symptoms and Effects****Acute/Immediate**

headache and lightheadedness; narcotic effects, including dizziness, drowsiness, and loss of coordination

**Delayed**

drying, cracking, or defatting of the skin

## Indications of Need for Immediate Medical Attention and Specific Treatment Required

### Indications of Need for Immediate Medical Attention

If shortness of breath, difficulty breathing, spontaneous vomiting occurs, or loss of consciousness, seek immediate medical attention.

### Specific Treatment and Notes to Physician

No additional information available

## Section 5 – Firefighting Measures

### Fire Extinguishing Media

#### Support for Combustion

Product supports combustion.

#### Suitable Extinguishing Media

water fog, dry chemical, alcohol-resistant foam, or carbon dioxide

#### Unsuitable Extinguishing Media

water jet/spray (may cause product to float to surface and reignite)

### Special Hazards/Considerations

#### Combustion Products

Combustion in the presence of air may yield hydrocarbons, carbon monoxide, carbon dioxide, and organic oxygenates.

### Special Protective Equipment and Precautions for Firefighters

#### Special Protective Equipment

Firefighters should employ SCBA and full protective gear, including shield, as product is comprised of low-boiling, flammable solvents and may vent, rupture, or explode violently at elevated temperatures.

#### Precautions and Procedures

Contains gas under pressure; may explode if heated. Vapors heavier than air. Remove product from area if safe to do so. Use water spray to cool nearby containers.

## Section 6 – Accidental Release Measures

### Personal and Environmental Precautions

#### Personal Precautions

Keep away from heat, sparks, open flames, and hot surfaces. No smoking. Avoid breathing gas, mist, vapor, or spray. Wash thoroughly with soap and water after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves, protective clothing, and eye or face protection.

#### Environmental Precautions

Avoid release to the environment. Prevent contamination of ground water.

### Materials and Methods for Containment

#### Small Spills

Use socks/absorbent mini-booms or other inert barrier if necessary to contain small spills.

#### Large Spills

Utilize large socks/absorbent booms or other inert barrier to form dam/dike in order to contain spill and prevent further loss.

### Materials and Methods for Cleanup

#### Small Spills

Remove source from area if safe to do so. Use granular sorbent, gel sorbent, vermiculite, cat litter, dirt/earth, pads/rolls, or pillows to absorb spilled material. Remediate affected area as necessary.

#### Large Spills

Keep upwind from spill. Remove source from area if safe to do so. Use explosion-proof transfer equipment to recover spilled material. Use granular sorbent, gel sorbent, vermiculite, cat litter, dirt/earth, pads/rolls, or pillows to absorb residual material. Remediate affected area as necessary.

## Section 7 – Handling and Storage

### Precautions for Safe Handling

#### Personal Precautions

Avoid breathing gas, mist, vapor, or spray. Use only outdoors or in a well-ventilated area. Wear protective gloves, protective clothing, and eye or face protection. Wash thoroughly with soap and water after handling.

#### Environmental Precautions

Keep away from heat, sparks, open flames, and hot surfaces. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Avoid release to the environment.

### Conditions and Considerations for Safe Storage

Contains gas under pressure; may explode if heated. Protect from sunlight. Do not expose to temperatures exceeding 122°F (50°C). Store locked-up. Store according to NFPA Aerosol Level 2 recommendations.

## Section 8 – Exposure Controls/Personal Protection

<u>Component</u>	<u>CAS RN</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Acetone	67-64-1	1000 ppm	500 ppm
Isohexane	107-83-5	NE	500 ppm
Carbon Dioxide	124-38-9	5000 ppm	5000 ppm

### Exposure Controls

#### Appropriate Engineering Controls

If practical, use outside with adequate ventilation to minimize exposure.

#### PPE Overview

##### **Hand Protection**

Use of chemical-resistant gloves (EVAL, neoprene, nitrile/Buna-N, PVA, PVC, or Viton) is recommended.

##### **Eye Protection**

Use of safety glasses with wrap-around lens or goggles is recommended.

##### **Respiratory Protection**

If necessary, use respiratory protection sufficient to reduce exposure to permissible limits.

##### **Additional Protection**

For industrial settings, access to a chemical safety shower with eye wash station is strongly recommended.

## Section 9 – Physical and Chemical Properties

### Information on Basic Physical and Chemical Properties

#### Physical State

liquid

#### Appearance

clear, colorless

#### Odor

mild, solvent

#### Odor Threshold

13 ppm

#### pH

not relevant

#### Freezing Point

< -138°F

#### Boiling Range

133 - 147°F

#### Flash Point and Method

< 20°F by closed-cup tester

#### Explosion Limits in Air

2.0 - 11.6% by volume (composite)

#### Evaporation Rate

5.6 (n-Butyl Acetate=1.0)

#### Vapor Pressure, as supplied

80 - 120 PSI (typical)

#### Vapor Density

>1.0

#### Specific Gravity

0.78 at 68°F

#### Density

6.5 lb/gal at 68°F

#### Water Solubility

slightly soluble

#### n-Octanol/Water Partition Coefficient (log P<sub>ow</sub>)

0.2 (composite)

#### Viscosity

0.4 cSt at 68°F

#### Volatility

100% by weight

#### Auto-ignition temperature

790°F (composite)

## Other Information

### VOC Content

10% by weight (consumer products)

### VOC Composite Partial Pressure, PPC

23 mm of Hg at 68°F

## Section 10 – Stability and Reactivity

### Chemical Stability under Normal Conditions of Use

#### Chemical Stability

Stable under normal conditions of use.

#### Conditions Affording Instability

none known

### Reactivity

not expected

### Possibility of Hazardous Reactions

none known

### Conditions to Avoid

Avoid direct sunlight and excessive temperatures. Do not puncture, incinerate, or crush. Keep away from heat, sparks, open flames, and hot surfaces. No smoking. If practical, avoid temperatures exceeding flash point.

### Incompatible Materials

strong acids; oxidizers; reducing agents;

### Hazardous Decomposition Products

none known

## Section 11 – Toxicological Information

### Likely Routes of Exposure

ingestion, skin contact, eye contact, inhalation

### Symptoms Related to Physical, Chemical, and Toxicological Characteristics

#### Ingestion

##### **Large Quantity**

gastrointestinal disturbances, including upset stomach, cramping, nausea, vomiting, and diarrhea

##### **Small Quantity/Incidental Contact**

virtually nontoxic after single ingestion of small quantity

#### Skin Contact

moderate irritation

#### Eye Contact

moderate eye irritation

#### Inhalation

headache, lightheadedness; narcotic effects, including dizziness, drowsiness, and loss of coordination

### Immediate, Delayed, and Chronic Effects

#### *SHORT-TERM EXPOSURE*

#### Potential Immediate Effects

##### **Ingestion**

drying, burning, or irritation of the mouth and throat, gastrointestinal disturbances, nausea and vomiting

##### **Skin Contact**

drying of the skin

##### **Eye Contact**

temporary corneal damage

##### **Inhalation**

shortness of breath or difficulty breathing, headache, dizziness, nausea and vomiting, drowsiness, fatigue, loss of consciousness

#### Potential Delayed Effects

##### **Ingestion**

none known

##### **Skin Contact**

defatting of the skin, drying and cracking of the skin, aggravation of pre-existing skin conditions

**Eye Contact**

temporary corneal damage

**Inhalation**

fatigue

**LONG-TERM EXPOSURE**

**Potential Immediate Effects**

none known

**Potential Delayed Effects**

none known

**Potential Chronic Health Effects**

**Carcinogenicity**

**International Agency for Research on Cancer (IARC) Monographs**

all components "Group 3 – Not Classifiable as to Human Carcinogenicity" or not listed

**National Toxicology Program (NTP) Report on Carcinogens**

not listed

**Occupational Safety & Health Administration (OSHA)**

not listed

**Mutagenicity / Genetic Toxicity**

not suspected of being a human mutagen / genetic toxicant

**Teratogenicity**

not suspected of being a human teratogen

**Developmental Effects**

not suspected of being a developmental toxicant

**Fertility Effects**

not suspected of being a reproductive/fertility toxicant

**Effects on Lactation**

not suspected of affecting lactation

**SPECIFIC TARGET ORGAN TOXICITY (STOT)**

**Single Exposure**

non-specific effects

**Repeated Exposure**

brain/central nervous system (CNS) effects

**Numerical Measures of Acute Toxicity**

**Oral (Rat)**

LD<sub>50</sub>: >5000 mg/kg (derived)

**Dermal (Rabbit)**

LD<sub>50</sub>: >5000 mg/kg (derived)

**Inhalation (Rat)**

LC<sub>50</sub>: >50 mg/L (derived)

**Additional Toxicological Information**

**Skin Irritation/Corrosion (Rabbit)**

skin irritant

**Serious Eye Damage/Irritation (Rabbit)**

eye irritant

**Respiratory Sensitization**

does not cause respiratory sensitization

**Skin Sensitization**

does not cause skin sensitization

**Aspiration Hazard**

not an aspiration hazard

## Section 12 – Ecological Information

**General Ecological Assessment/Overview**

Harmful to aquatic life. Very mobile in soils which may lead to contamination of groundwater.

**Aquatic Toxicity**

**Vertebrates (Fish)**

**Acute Toxicity**

LC<sub>50</sub>: 40 mg/L (derived)

**Chronic Toxicity**

NOEC: not available

**Invertebrates (Water Flea)**

**Acute Toxicity**

LC<sub>50</sub>: >100 mg/L (derived)

**Chronic Toxicity**

NOEC: >100 mg/L (derived)

**Aquatic Plants (Freshwater Algae)**

**Acute Toxicity**

EC<sub>50</sub>: >100 mg/L (derived)

**Chronic Toxicity**

NOEC: >100 mg/L (derived)

**Terrestrial Toxicity**

**Invertebrate (Earthworm)**

LC<sub>50</sub>: >100 mg/L (derived)

**Persistence and Degradability**

**Persistence**

not expected to be persistent

**Degradability**

rapidly degradable

**Bioaccumulative Potential**

**Bioaccumulation Potential Assessment**

does not bioaccumulate

**Bioaccumulation Factor**

not relevant

**Mobility in Soils**

**Mobility in Soils Assessment**

very mobile in soils—may contaminate groundwater

**Soil Organic Carbon/Water Partition Coefficient (log K<sub>oc</sub>)**

2.7 (composite)

**Results of PBT and vPvB Assessment**

not a persistent, bioaccumulative, toxic chemical (PBT); not very persistent and very bioaccumulative (vPvB)

**Other Adverse Effects**

none known

## **Section 13 – Disposal Considerations**

**General Assessment/Overview**

Dispose of waste in accordance with all applicable regulations. Harmful to aquatic life—do not pour into waterways. Contains aggressive solvents, which may dissolve PVC pipes and fittings—do not pour down drain.

**RCRA Hazardous Waste Code(s) (40 CFR 261.20-33)**

Based on this material as-supplied, used or unwanted product may be subject to RCRA regulations and classified as F003 – spent non-halogenated solvent mixture containing acetone, methanol, and/or xylene

## **Section 14 – Transportation Information**

**Transportation by Ground – US Department of Transportation**

**Shipping Description**

UN1950, Aerosols, 2.1

**Exemption Eligibility**

When shipped by ground, this product may be eligible for a “Limited Quantity” exception per §49 CFR 173.306.

**Transportation by Air – ICAO/IATA**

**Shipping Description**

UN1950, Aerosols, Flammable, 2.1

**Exemption Eligibility**

When shipped by air, this product may be eligible for a “Limited Quantity” exception.

**Transportation by Water – IMO/IMDG**

**Shipping Description**

UN1950, Aerosols, 2.1

**Exemption Eligibility**

When shipped by water, this product may be eligible for a “Limited Quantity” exception.

## Section 15 – Regulatory Information

### Safety, Health, and Environmental Regulations/Legislation

#### *UNITED STATES – SELECT FEDERAL REGULATIONS*

##### Environmental Protection Agency (EPA)

##### **Toxic Substances Control Act (TSCA) (15 USC 2601, et seq.)**

All chemicals known to be present in this product are either listed on the TSCA inventory or are not required to be.

##### **SARA Title III (42 USC 9601, et seq.)**

##### **Section 302 – Extremely Hazardous Substances (40 CFR 355)**

none

##### **Section 304 – Emergency Release Notification (40 CFR 302.4)**

Acetone

##### **Section 311/312 – Hazard Categorization (40 CFR 370.40)**

acute toxicity, fire hazard, sudden release of pressure

##### **Section 313 – Toxic Chemicals (40 CFR 372.65)**

none

##### **Clean Air Act (42 USC 7401, et seq.)**

##### **Section 112 – Hazardous Air Pollutants**

none

##### **Section 183(e) – Commercial and Consumer Products – VOC Limit and Category (40 CFR 59 subpart C)**

not regulated as “Brake Cleaner” / “Automotive Brake Cleaner”

##### Occupational Safety & Health Administration (OSHA)

##### **Hazard Communication Standard**

This safety data sheet (SDS) is provided for compliance with applicable regulations of the Hazard Communication Standard of 2012 (HCS/HAZCOM 2012) found in §29 CFR 1910.1200. Federal law requires persons receiving this document to study it carefully, become aware of the hazards of this product, and notify all employees, visitors, agents, and contractors of the information contained herein.

##### Consumer Product Safety Commission

##### **Federal Hazardous Substances Act**

This product is regulated under the Federal Hazardous Substances Act, is subject to the labeling requirements of 16 CFR 1500, and must include at minimum the following cautionary statements: DANGER: Extremely Flammable. Eye and skin irritant. Contents under pressure. Keep out of the reach of children.

#### *UNITED STATES – SELECT REGIONAL CONSIDERATIONS*

##### Ozone Transport Commission (OTC) – Model Rule VOC Limit and Category

10% as “Brake Cleaner” / “Automotive Brake Cleaner” (complies)

##### Lake Michigan Air Directors Consortium (LADCO) – Model Rule VOC Limit and Category

45% as “Brake Cleaner” (complies)

#### *UNITED STATES – SELECT STATE REGULATIONS*

##### California

##### **Office of Environmental Health Hazard Assessment (OEHHA)**

##### **Proposition 65 – Safe Drinking Water and Toxic Enforcement Act of 1986**

This product is not subject to the labeling requirements of Proposition 65 – Safe Drinking Water and Toxic Enforcement Act of 1986.

##### **Air Resources Board (ARB/CARB)**

##### **Regulation for Reducing Emissions from Consumer Products – VOC Limit and Category**

10% as “Brake Cleaner” (complies)

##### Massachusetts

##### **“Right-to-Know” Legislation – Substance List (105 CMR 670.000)**

Acetone, Isohexane, Carbon Dioxide

##### New Jersey

##### **“Right-to-Know” Legislation – Hazardous Substance List (34:5A-1, et seq.)**

Acetone, 2-Methylpentane, Carbon Dioxide

##### Pennsylvania

##### **“Right-to-Know” Legislation – Hazardous Substance List (Chapter 323)**

2-Propanone, 2-Methylpentane, Carbon Dioxide

#### *INTERNATIONAL – SELECT REGULATIONS*

##### Canada

##### **Environment Canada – Domestic Substances List (DSL)**

All chemicals known to be present in this product are listed on the DSL.

##### China

##### **Ministry of Environmental Protection – Inventory of Existing Chemical Substances Produced or Imported in China (IECSC)**

All chemicals known to be present in this product are listed on the IECSC.

European Union**European Chemical Agency – European Inventory of Existing Chemical Substances (EINECS)**

All chemicals known to be present in this product are listed on the EINECS.

**Chemical Safety Assessment**

has not been conducted on product, as-supplied

**Section 16 – Other Information****Hazardous Materials Information System (HMIS)**

<b>Health</b>	<b>2</b>	<b>Hazard Index</b>
<b>Flammability</b>	<b>3</b>	Least - 0
<b>Reactivity</b>	<b>0</b>	Slight - 1
<b>Protective Equipment</b>	<b>B</b>	Moderate - 2
		High - 3
		Extreme - 4

**Index of Abbreviations**

ACGIH – American Council of Governmental and Industrial Hygienists

CAS RN – Chemical Abstracts Service Registry Number

EC<sub>50</sub> – Median Effective Concentration

IATA – International Air Transport Association

ICAO – International Civil Aviation Organization

IMDG – International Maritime Dangerous Goods

IMO – International Maritime Organization

LC<sub>50</sub> – Median Lethal Concentration

LD<sub>50</sub> – Median Lethal Dose

N/A – Not Applicable

NE – Not Established

NOEC – No Observable Exposure Concentration

PEL – Permissible Exposure Limit (as required by OSHA)

TLV – Threshold Limit Value (as recommended by ACGIH)

VOC – Volatile Organic Compound

**Relevant Dates and Applicability****Date of Issuance**

June 19, 2017

**Date of Previous Revision**

N/A—initial SDS for blend “5N-1”

**Primary Revision Change(s)**

N/A

**Document Applicability**

This safety data sheet applies only to part numbers 2420C and 2421C manufactured on or after May 9, 2017.

**Document Author**

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**Legal Disclaimer**

The information contained in this document is, to the best of Berryman Products, Inc.’s knowledge, complete and accurate but is not warranted. All materials may present unknown hazards and should be used with caution. It is the responsibility of the user to evaluate the information in a prudent manner and to use it in a manner consistent with its intended purpose. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.