



# 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"

#### Product Number(s)

2420C and 2420C

BERRYMAN BRAKE CLEANER  
NON-CHLORINATED

### 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

#### Health Hazards

Acute Oral – Category 4

Skin Irritant – Category 2

Eye Irritant – Category 2A

Developmental – Category 2

Specific Target Organ Toxicity - Single Exposure – Category 1

Specific Target Organ Toxicity - Repeated Exposure – Category 2 (central nervous system)

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.

H229 – Pressurized container—may burst if heated.

H302 – Harmful if swallowed.

H315 – Causes skin irritation.

H319 – Causes serious eye irritation.

H361d – Suspected of damaging the unborn child.

H370 – Causes damage to organs.

H373 – May cause damage to central nervous system through prolonged or repeated exposure.

H402 – Harmful to aquatic life.

**Prevention Precautionary Statements**

P101 – Keep out of reach of children.

P102 – Read label before use.

P201 – Obtain special instructions before use.

P202 – Do not handle until all safety precautions have been read and understood.

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.

P233 – Keep container tightly closed.

P240 – Ground/bond container and receiving equipment. Special precautions may be necessary for non-conductive containers.

P241 – Use explosion-proof electrical, ventilation, and lighting equipment.

P242 – Use only non-sparking tools, such as brass or bronze.

P243 – Take precautionary measures against static discharge.

P251 – Do not pierce or burn, even after use.

P260 – Do not breathe fumes, gas, mist, vapor, or spray.

P264 – Wash thoroughly with soap and water after handling.

P270 – Do not eat, drink or smoke when using this product.

P273 – Avoid release to the environment.

P280 – Wear protective gloves, protective clothing, and eye or face protection.

**Response Precautionary Statements**

P314 – Get medical advice/attention if you feel unwell.

P321 – Specific treatment available in this document in “Section 4 – First Aid Measures.”

P330 – Rinse mouth.

P301/P312 – IF SWALLOWED: Call POISON CONTROL CENTER, hospital emergency room, or doctor if you feel unwell.

P303/P361/P353 – IF ON SKIN (OR HAIR): Immediately take off all contaminated clothing. Rinse skin with soap and water or shower.

P305/P351/P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P308/P311 – If exposed or concerned, call POISON CONTROL CENTER, hospital emergency room, or doctor.

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.

P370/P378 – In case of fire, use water spray, water fog, dry chemical, alcohol-resistant foam, or carbon dioxide to extinguish.

**Storage Precautionary Statements**

P405 – Store locked-up.

P403/P235 – Store in a well-ventilated place. Keep cool.

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%
Toluene	108-88-3	3-6%
Methanol	67-56-1	3-6%
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

Immediately take off all contaminated clothing. Rinse skin with 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; nausea and vomiting

#### 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

In the event of shortness of breath, difficulty breathing, spontaneous vomiting, 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

Pressurized container—may burst if heated. Highly flammable liquid and vapor. 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

Do not handle until all safety precautions have been read and understood. Keep away from heat, sparks, open flames, and hot surfaces. No smoking. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Special precautions may be necessary for non-conductive containers. Use explosion-proof electrical, ventilation, and lighting equipment. Use only non-sparking tools, such as brass or bronze. Do not breathe fumes, gas, mist, vapor, or spray. Wash thoroughly with soap and water after handling. Do not eat, drink or smoke when using this product. 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**

Use large socks/absorbent booms or other inert barrier to form dam/dike in order to contain large spills 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**

Do not handle until all safety precautions have been read and understood. Do not breathe fumes, gas, mist, vapor, or spray. Wear protective gloves, protective clothing, and eye or face protection. Wash thoroughly with soap and water after handling. Do not eat, drink or smoke when using this product.

**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. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Special precautions may be necessary for non-conductive containers. Use explosion-proof electrical, ventilation, and lighting equipment. Use only non-sparking tools, such as brass or bronze. Do not pierce or burn, even after use. Avoid release to the environment.

**Conditions and Considerations for Safe Storage**

Pressurized container—may burst if heated. Protect from sunlight. Do not expose to temperatures exceeding 122°F (50°C). Keep out of reach of children. 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
Toluene	108-88-3	200 ppm	20 ppm
Methanol	67-56-1	200 ppm	200 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 (butyl rubber, 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**

acetone

**Odor Threshold**

1.6 ppm

**pH**

not relevant

**Freezing Point**

< -138°F

**Boiling Range**

133 - 232°F

**Flash Point and Method**

< 20°F by closed-cup tester

**Explosion Limits in Air**

2.3 - 13.5% by volume (composite)

**Evaporation Rate**

5.2 (n-Butyl Acetate=1.0)

**Vapor Pressure, as supplied**

80-120 PSI (typical)

**Vapor Density**

>1.0

**Specific Gravity**

0.797 at 68°F

**Density**

6.64 lb/gal at 68°F

**Water Solubility**

slightly soluble

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

-0.1 (composite)

**Viscosity**

0.4 cSt at 68°F

**Volatility**

100% by weight

**Auto-ignition temperature**

820°F (composite)

**Decomposition temperature**

unknown

**Other Information**

**VOC Content**

10% by weight (EPA Method 24)

10% by weight (consumer products)

**VOC Composite Partial Pressure, PPC**

4.4 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

respiratory tract irritation; 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

coma, death

##### 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

brain/central nervous system (CNS) effects

#### 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

possible developmental toxicant (Toluene, Methanol)

##### 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>: 1930 mg/kg (derived)

**Dermal (Rabbit)**

LD<sub>50</sub>: 5560 mg/kg (derived)

**Inhalation (Rat)**

LC<sub>50</sub>: 39 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 animal life. 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>: 490 mg/L (derived)

**Chronic Toxicity**

NOEC: 21 mg/L (derived)

**Invertebrates (Water Flea)**

**Acute Toxicity**

LC<sub>50</sub>: 52 mg/L (derived)

**Chronic Toxicity**

NOEC: 11 mg/L (derived)

**Aquatic Plants (Freshwater Algae)**

**Acute Toxicity**

EC<sub>50</sub>: 31 mg/L (derived)

**Chronic Toxicity**

NOEC: not available

**Terrestrial Toxicity**

**Invertebrate (Earthworm)**

LC<sub>50</sub>: 180 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**

90 (Toluene)

#### 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>)

1.1 (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 animal life—do not pour on ground. Harmful to aquatic life—do not pour into waterways. Highly flammable liquid and vapor and 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, 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, Toluene, Methanol

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

acute toxicity, chronic toxicity, fire hazard, sudden release of pressure

Section 313 – Toxic Chemicals (40 CFR 372.65)

Toluene, Methanol

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

Section 112 – Hazardous Air Pollutants

Toluene, Methanol

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

not regulated as “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: WARNING: Extremely Flammable. Eye 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" (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 subject to the labeling requirements of Proposition 65 – Safe Drinking Water and Toxic Enforcement Act of 1986 and must bear the cautionary statement: WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

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, Toluene, Methanol, Carbon Dioxide

New Jersey

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

Acetone, Toluene, Methyl Alcohol, Carbon Dioxide

Pennsylvania

"Right-to-Know" Legislation – Hazardous Substance List (Chapter 323)

2-Propanone, Methylbenzene, Methyl Alcohol, 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)**

Health	* 2
Flammability	3
Reactivity	0
Protective Equipment	B

Hazard Index

Least	- 0
Slight	- 1
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

May 28, 2015

Date of Previous Revision

not applicable—initial Safety Data Sheet

Primary Revision Change(s)

not applicable

Document Applicability

This safety data sheet applies to part numbers 2420C and 2421C manufactured on or after January 1, 2015.

### Document Author

Dan Nowlan

### 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.