



Material Safety Data Sheet

Section 1 – Product and Company Identification

Product Name: Non-Chlorinated Brake Cleaner
Product Synonym: 5N
Product Numbers: 2401C, 2405C, 2415C, 2455C
Product Description: California-compliant, brake cleaner

Manufacturer: Berryman Products, Inc.
3800 E Randol Mill Rd
Arlington, TX 76011
(800) 433-1704 within USA
(817) 640-2376 outside USA
www.BerrymanProducts.com

Emergency Contact: Infotrac, Inc., (800) 535-5053

Section 2 – Hazards Identification

Emergency Overview: Extremely flammable. May cause eye and skin irritation.

Routes of Exposure: Ingestion, inhalation, eye contact, skin contact

Possible Health Hazards

Eyes: May cause moderate to severe irritation of the eyes and result in blurred vision and conjunctivitis.

Skin: May cause mild to moderate irritation of the skin. Prolonged or repeated contact may dry the skin and result in severe irritation and dermatitis.

Inhalation: Acute overexposure may result in headache, dizziness, nausea, unconsciousness, and irregular heartbeat. Chronic overexposure or intentional abuse may adversely affect the liver, kidneys, lungs, blood, brain, vision, and hearing and result in blindness or death.

Ingestion: Accidental ingestion and subsequent aspiration of even small quantities may cause lung damage, aspiration pneumonitis, cyanosis, blindness, and death. Ingestion of larger amounts may also include gastrointestinal effects, such as abdominal discomfort, pain, nausea, and vomiting.

Supplemental Information: See "Section 11 – Toxicological Information" for additional information.

Section 3 – Composition / Information on Ingredients

<u>Ingredient</u>	<u>CAS Number</u>	<u>Weight</u>
Acetone	67-64-1	85-90%
Methanol	67-56-1	<4%
Toluene	108-88-3	<10%

Section 4 – First Aid Measures

Eye Contact: Immediately flush eyes with water for at least 15 minutes, holding the eyelids apart at regular intervals to ensure complete irrigation. Dispose of contaminated contact lenses.

Skin Contact: Remove contaminated clothing, and wash affected areas of body thoroughly with soap and water. Allow clothing to air dry, and launder before reuse. Seek medical attention if irritation persists.

Inhalation: If breathing difficulties occur, remove source of exposure or move victim to fresh air and administer oxygen, if necessary. If symptoms persist, seek immediate medical attention. If breathing stops, give artificial respiration and seek immediate medical attention.

Ingestion: Do *not* induce vomiting unless otherwise directed by a medical professional. Dilute stomach contents by drinking 1-2 cups of milk or water. Seek medical attention immediately.

Section 5 – Firefighting Measures

Flash Point and Method: <20°F by Setaflash closed-cup tester

Flammability Limits: Lower – N/A Upper – N/A

Suitable Extinguishing Media: All, including water fog, foam, dry chemical, and carbon dioxide

Unsuitable Extinguishing Media: N/A

Protective Equipment: Employ SBCA and full protective gear, including shield, as product is comprised of extremely flammable, low-boiling solvents and may vent, rupture, or explode violently at elevated temperatures.

Specific Procedures: Product may present explosion hazards at elevated temperatures. Move product from area if possible without risk of injury. Use water spray to cool containers.

Section 6 – Accidental Release Measures

General Remediation Overview: Extremely flammable! Avoid all sources of ignition and thoroughly ventilate area!

Personal Precautions: Avoid unnecessary contact with product.

Environmental Precautions: Prevent further loss of product if safely possible.

Methods for Containment: Use booms or other barriers as necessary to prevent further loss.

Methods for Cleaning Up: For small spills, quickly mop up or absorb with inert material, such as corn cob, cellulose, or vermiculite. For large spills, pump or transfer material into containers for recovery and use absorbent material for collection of unrecoverable product. Ensure thorough ventilation of the local area to prevent the accumulation of flammable vapors.

Section 7 – Handling and Storage

Handling: Avoid contact with skin and eyes. Wash hands thoroughly after use.

Storage: Store in cool, dry location.

Section 8 – Exposure Controls / Personal Protection

<u>Ingredient</u>	<u>Exposure Limit</u>	<u>Source</u>
Acetone	NE	N/A
Methanol	200 ppm	ACGIH
Toluene	20 ppm	ACGIH

Engineering Controls: Use outside with adequate ventilation to minimize exposure.

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

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

Skin Protection: Employment of impermeable gloves is recommended.

Other Protection: For industrial settings, combination safety shower with eye wash station is recommended.

Section 9 – Physical and Chemical Properties

Physical State: Liquid

Appearance: Clear, colorless to very light yellow

Odor: Mild, aromatic

Freezing Point: <-40°F (approximate)

Boiling Range: 133-230°F (approximate)

Flash Point: <20°F by Setaflash closed-cup tester

Specific Gravity: 0.79-0.81 at 68°F

pH: N/A, as supplied

Solubility in Water: Infinite

Volatile Content: 100%

Evaporation Rate: faster than water

Vapor Density: Heavier than air

Vapor Pressure: 3 PSI at 68°F

VOC Content: 10% by weight (80 g/L) (by EPA Method 24)

VOC Composite Partial Pressure, PP_c: 2.5 mm Hg at 68°F (as calculated by SCAQMD Rule 1171(B)(57))

Section 10 – Stability and Reactivity

Chemical Stability: Stable under normal conditions

Incompatible Materials: Acids, strong oxidizers

Hazardous Decomposition Products: None under normal conditions of use. Thermal decomposition may yield carbon monoxide, carbon dioxide, and organic oxygenates.

Possibility of Hazardous Reactions: Negligible

Section 11 – Toxicological Information

General Information: This formulated product has not been evaluated for toxicological properties. Acute toxicity is anticipated to be low to moderate. Chronic toxicity is expected to be fairly low, but intentional abuse may cause blindness or be fatal.

Acute Toxicity: No specific data available on blend

Chronic Toxicity: No specific data available on blend

Carcinogenicity: N/A

Teratogenicity: Case studies suggest maternal abuse of toluene may increase the chances of birth defects.

Mutagenicity: N/A

Supplemental Information: See “Section 2 – Hazards Identification” of this MSDS for additional information.

Section 12 – Ecological Information

Ecotoxicity: This product is not anticipated to be ecologically significant in small amounts.

Persistence and Degradability: Not expected to be persistent. All primary ingredients have environmentally favorable biodegradation profiles.

Bioaccumulation Potential: None

Section 13 – Disposal Considerations

Disposal Instructions: None specific. Dispose of waste in accordance with applicable regulations.

Section 14 – Transportation Information

US Department of Transportation (DOT): In any size container shipped by ground, this product should bear the following shipping description:

UN1993, Flammable Liquid, N.O.S. (contains Acetone, Toluene, and Methanol), 3

International Air Transportation Association (IATA): In any size container shipped by air, this product should bear the following shipping description:

UN1993, Flammable Liquid, N.O.S. (contains Acetone, Toluene, and Methanol), 3

Section 15 – Regulatory Information

FEDERAL CONSIDERATIONS

SARA Title III, Section 302 – Extremely Hazardous Substances: Neither this product nor any of its components appear on the list of extremely hazardous substances (EHS) found in §40 CFR 355 Appendices A and B and are not subject to the emergency planning (EPCRA) requirements of §40 CFR 355.30 or the reportable quantity (RQ) and threshold planning quantity (TPQ) requirements of §40 CFR 355 Appendices A and B.

SARA Title III, Section 304 – Hazardous Substances: This product contains the following components found in the list of hazardous substances of §40 CFR Table 302.4: Methanol (CAS # 67-56-1); Toluene (CAS # 108-88-3)

SARA Title III, Sections 311/312 – Hazard Classes: This product contains one or more ingredients that are classified into the following hazard categories outlined in §40 CFR 370.40: fire; immediate (acute) health; delayed (chronic) health

SARA Title III, Section 313 – Toxic Chemicals: This product contains a chemical listed in §40 CFR 372.65 exceeding the *de minimis* concentration reporting requirements of §40 CFR 372.38: Methanol (CAS # 67-56-1); Toluene (CAS # 108-88-3)

Section 15 – Regulatory Information (continued)

FEDERAL CONSIDERATIONS (continued)

Clean Air Act, Section 183(e) – Consumer and Commercial Products: This product complies with the National Volatile Organic Compound Emission Standards for Consumer Products regulations found in §70 FR 69759.

Toxic Substances Control Act (TSCA): All chemicals known to be present in this product are either listed on the TSCA inventory or are not required to be per §15 USC 2601 et seq.

Occupation Safety and Health Administration (OSHA): This material safety data sheet is provided for compliance with applicable regulations of the Hazard Communication Standard (HCS) found in §29 CFR 1910.1200(g). Federal law requires persons receiving this document to study it carefully and become aware of the hazards of this product. Notify all employees, visitors, agents, and contractors of the information on this sheet.

Consumer Product Safety Commission (CPSC): This product is regulated under the Federal Hazardous Substances Act, is subject to the labeling requirements of 16 CFR 1500, and must include the following cautionary statements: Danger. Extremely flammable. Eye and skin irritant. Keep out of the reach of children.

REGIONAL CONSIDERATIONS

Lake Michigan Air Directors Consortium (LADCO): Complies with category VOC requirement

Ozone Transport Commission (OTC): Complies with category VOC requirement

STATE CONSIDERATIONS

California: This product is subject to the labeling requirements of “Proposition 65 – Safe Drinking Water and Toxic Enforcement Act of 1986” (“Prop 65”) and must product bear the cautionary statement “WARNING: This product contains chemicals known to the state of California to cause birth defects or other reproductive harm.”

New Jersey: For Right-To-Know (“RTK”) labeling requirements, refer to “Section 3 – Composition / Information on Ingredients.”

Section 16 – Other Information

Hazardous Materials Identification System (HMIS)

HMIS Hazard Rating	HMIS Hazard Index
Health 1	Least - 0
Flammability 3	Slight - 1
Reactivity 0	Moderate - 2
Protective Equipment X	High - 3
	Extreme - 4

Index of Abbreviations

ACGIH – American Council of Governmental and Industrial Hygienists

MSHA – Mine Safety and Health Administration

N/A – not applicable

NE – not established

NIOSH – National Institute for Occupational Safety and Health

PEL – Permissible Exposure Limit (as required by OSHA)

TLV – Threshold Limit Value (as recommended by ACGIH)

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Revision Changes: Numerous due to formula modifications; document format updated

Applicability: This document only applies to part numbers 2401C, 2405C, 2415C, and 2455C manufactured after December 31, 2010.

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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.