



Safety Data Sheet

Section 1 – Identification of the Mixture and of the Company

Product Identification

Primary Identifier(s) Used on the Label

Berryman *ELECTRIC MOTOR CLEANER*

Berryman *ENERGIZED ELECTRICAL PARTS CLEANER*

Product Synonym(s)

blend "5B"

Product Number(s)

1520 and 1540

Relevant Identified Uses and Uses Advised Against

Recommended Uses

electrical motor and parts cleaning

Uses Advised Against

not for use in some applications or states

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

Gases Under Pressure – Compressed Gas

Health Hazards

Skin Irritant – Category 2

Eye Irritant – Category 2A

Germ Cell Mutagen – Category 2

Carcinogen – Category 1A

Developmental/Reproductive Toxicant – Category 1B

Specific Target Organ Toxicity - Single Exposure – Category 3 (respiratory tract irritant and narcotic effects)

Environmental Hazard - Acute – Category 3

Allocation of Label Elements

Chemical Identity

Berryman *ELECTRIC MOTOR CLEANER*

Berryman *ENERGIZED ELECTRICAL PARTS CLEANER*

Pictograms



Signal Word

DANGER

Hazard Statements

H280 – Contains gas under pressure; may explode if heated.

H315 – Causes skin irritation.

H319 – Causes serious eye irritation.

H335 – May cause respiratory irritation.

H336 – May cause drowsiness or dizziness.

H341 – Suspected of causing genetic defects.

H350 – May cause cancer.

H360 – May damage fertility or the unborn child.

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.

P251 – Pressurized container—do not pierce or burn, even after use.

P261 – Avoid breathing fumes, 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/P340/312 – 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.

P308/P313 – If exposed or concerned, get medical advice/attention.

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>
Trichloroethylene	79-01-6	>90%
Carbon Dioxide	124-38-9	<10%

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

Do NOT induce vomiting. 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.

Description of First Aid Measures (cont'd.)

Inhalation

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

Most Important Symptoms and Effects

Acute/Immediate

respiratory tract irritation; headache and lightheadedness; narcotic effects, including dizziness, drowsiness, and loss of coordination; 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, or spontaneous vomiting, seek immediate medical attention.

Specific Treatment and Notes to Physician

Avoid administration of sympathomimetic drugs, such as epinephrine. If performing lavage, endotracheal and/or esophageal control is recommended. If spontaneous vomiting occurs, keep head below hips to avoid aspiration.

Section 5 – Firefighting Measures

Fire Extinguishing Media

Support for Combustion

Product does not support combustion.

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media

water jet/spray

Special Hazards/Considerations

Combustion Products

Combustion in the presence of air may yield hydrocarbons; chlorinated hydrocarbons; organic oxygenates; oxides of carbon and chlorine; phosgene; and hydrochloric acid/hydrogen chloride gas.

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 solvents and may vent, rupture, or explode violently at elevated temperatures.

Precautions and Procedures

Pressurized container—may burst 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

Do not handle until all safety precautions have been read and understood. Avoid breathing 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

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 mechanical 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. Avoid breathing fumes, 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

Do not pierce or burn, even after use. Avoid release to the environment.

Conditions and Considerations for Safe Storage

Protect from sunlight. Do not expose to temperatures exceeding 122°F (50°C). Store locked-up. Store according to NFPA Aerosol Level 1 recommendations.

Section 8 – Exposure Controls/Personal Protection

<u>Component</u>	<u>CAS RN</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Trichloroethylene	79-01-6	100 ppm	10 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

characteristic

Odor Threshold

20 ppm

pH

not relevant

Freezing Point

< -120°F

Boiling Range

188 - 189°F

Flash Point and Method

none by closed-cup tester

Explosion Limits in Air

7.7 - 10.1% by volume

Evaporation Rate

3.0 (n-Butyl Acetate=1.0)

Vapor Pressure, as supplied

80-120 PSI (typical)

Vapor Density

>1.0

Specific Gravity, as supplied

1.43 at 68°F

Density

11.9 lb/gal at 68°F

Information on Basic Physical and Chemical Properties (cont'd)

Water Solubility

insoluble

n-Octanol/Water Partition Coefficient (log P_{ow})

2.6 (composite)

Viscosity

0.5 cSt at 68°F

Volatility

100% by weight

Auto-ignition temperature

760°F (literature)

Other Information

VOC Content

>90% by weight

VOC Composite Partial Pressure, PPC

57 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. May contain the following stabilizer(s): 2-methyl-2-butene (“amylene”) and/or butylene oxide

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.

Incompatible Materials

strong acids; oxidizers; reducing agents; metallic aluminum; and powdered zinc, aluminum, magnesium, potassium, and sodium

Hazardous Decomposition Products

hydrochloric acid/hydrogen chloride gas and phosgene

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

gastrointestinal disturbances, including upset stomach and cramping

Skin Contact

severe skin irritation; numbness or tingling of the skin

Eye Contact

blurred vision; 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

Potential Immediate Effects (cont'd)

Eye Contact

blurred vision

Inhalation

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

Potential Delayed Effects

Ingestion

aspiration pneumonitis, cyanosis, coma, death

Skin Contact

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

Eye Contact

none known

Inhalation

nausea and vomiting, 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

Group 1 – Known Human Carcinogen (Trichloroethylene)

National Toxicology Program (NTP) Report on Carcinogens

Reasonably Anticipated to Be a Human Carcinogen (Trichloroethylene)

Mutagenicity / Genetic Toxicity

possible human mutagen (Trichloroethylene)

Teratogenicity

possible human teratogen (Trichloroethylene)

Developmental Effects

probable developmental toxicant (Trichloroethylene)

Fertility Effects

probable reproductive/fertility toxicant (Trichloroethylene)

Effects on Lactation

not suspected of affecting lactation

SPECIFIC TARGET ORGAN TOXICITY (STOT)

Single Exposure

central nervous system (narcotic effects); respiratory tract (irritation)

Repeated Exposure

none known

Numerical Measures of Acute Toxicity

Oral (Rat)

LD₅₀: 4900 mg/kg

Dermal (Rabbit)

LD₅₀: >5000 mg/kg

Inhalation (Rat)

LC₅₀: >50 mg/L

Additional Toxicological Information

Skin Irritation/Corrosion (Rabbit)

severe 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

unknown

Section 12 – Ecological Information

General Ecological Assessment/Overview

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

Aquatic Toxicity

Vertebrates (Fish)

Acute Toxicity

LC₅₀: 41 mg/L

Chronic Toxicity

NOEC: 40 mg/L

Invertebrates (Water Flea)

Acute Toxicity

LC₅₀: 18 mg/L

Chronic Toxicity

NOEC: not available

Aquatic Plants (Freshwater Algae)

Acute Toxicity

EC₅₀: 180 mg/L

Chronic Toxicity

NOEC: not available

Terrestrial Toxicity

Invertebrate (Earthworm)

LC₅₀: not available

Persistence and Degradability

Persistence

no persistence data available

Degradability

non-rapidly degradable

Bioaccumulative Potential

Bioaccumulation Potential Assessment

does not bioaccumulate

Bioaccumulation Factor

not relevant

Mobility in Soils

Mobility in Soils Assessment

mobile in soils—may contaminate groundwater

Soil Organic Carbon/Water Partition Coefficient (log K_{oc})

2.2 (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 F001 – spent halogenated solvent used in degreasing

Section 14 – Transportation Information

Transportation by Ground – US Department of Transportation

Shipping Description

UN1950, Aerosols, 2.2

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, Non-Flammable, 2.2

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, 2.2

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)

Trichloroethylene

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

acute toxicity, chronic toxicity, sudden release of pressure

Section 313 – Toxic Chemicals (40 CFR 372.65)

Trichloroethylene

Clean Air Act (42 USC 7401, et seq.)**Section 112 – Hazardous Air Pollutants**

Trichloroethylene

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 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: 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**

45% as “Electrical Cleaner” (does not comply)

no VOC limit as “Energized Electrical Cleaner” (restrictions may apply)

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

45% as “Electrical Cleaner” (does not comply)

no VOC limit as “Energized Electrical Cleaner” (restrictions may apply)

UNITED STATES – SELECT STATE REGULATIONS**California****Proposition 65 – Safe Drinking Water and Toxic Enforcement Act of 1986**

Part #1540 is subject to the labeling requirements of Proposition 65 – Safe Drinking Water and Toxic Enforcement Act of 1986 and may through August 29, 2018 bear the cautionary statement “WARNING! This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.” Otherwise, part #1540 must bear the cautionary symbol and statement: ⚠ WARNING! Cancer and Reproductive Harm - www.P65Warnings.CA.gov

Air Resources Board (ARB/CARB)**Regulation for Reducing Emissions from Consumer Products – VOC Limit and Category**

45% as “Electrical Cleaner” (does not comply)

no VOC limit as “Energized Electrical Cleaner” (restrictions may apply)

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

Trichloroethylene, Carbon Dioxide

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

Trichloroethylene, Carbon Dioxide

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

Trichloroethylene, 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		Hazard Index
Flammability	0		Least - 0
Reactivity	0		Slight - 1
Protective Equipment	X		Moderate - 2
			High - 3
			Extreme - 4

Index of Abbreviations

ACGIH – American Council of Governmental and Industrial Hygienists

CAS RN – Chemical Abstracts Service Registry Number

EC₅₀ – Median Effective Concentration

IATA – International Air Transport Association

ICAO – International Civil Aviation Organization

IMDG – International Maritime Dangerous Goods

IMO – International Maritime Organization

LC₅₀ – Median Lethal ConcentrationLD₅₀ – 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**

December 22, 2020

Date of Previous Revision

August 19, 2015

Primary Revision Change(s)

general update

Document Applicability

This safety data sheet applies to part numbers 1520 and 1540 manufactured on or after January 1, 2015.

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.