Safety Data Sheet

Section 1 – Identification of the Mixture and of the Company

Product Identification

Primary Identifier(s) Used on the Label

Berryman *AIR-INTAKE & THROTTLE BODY CLEANER*

Product Synonym(s)

blend "1AD-2"

Product Number(s)

2209

Relevant Identified Uses and Uses Advised Against

Recommended Uses

automotive air-intake and throttle body cleaner

Uses Advised Against

do not spray through air cleaner or onto mass air flow sensor

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)
Specific Target Organ Toxicity - Repeated Exposure – Category 2 (blood/blood system)

Allocation of Label Elements

Chemical Identity

Berryman *AIR-INTAKE & THROTTLE BODY CLEANER*

Pictograms

Allocation of Label Elements (cont'd)

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.
H373 – May cause damage to blood/blood system and central nervous system through prolonged or repeated exposure.
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 – 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.
P271 – Use only outdoors or in a well-ventilated area.
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."
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.
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

Component	CAS RN	Weight
Acetone	67-64-1	40-50%
Methyl Acetate	79-20-9	30-40%
Methyl Ethyl Ketone	78-93-3	4-8%
2-Butoxyethanol	111-76-2	4-8%
Carbon Dioxide	124-38-9	4-8%
Petroleum Oil	64742-65-0	1-2%

Section 4 – First Aid Measures

Description of First Aid Measures
Ingestion
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; 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 or difficulty breathing, 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 unburned 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. Do not breathe 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 a 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 breathe 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

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

Component	CAS RN	OSHA PEL	ACGIH TLV
Acetone	67-64-1	1000 ppm	500 ppm
Methyl Acetate	79-20-9	200 ppm	200 ppm
Methyl Ethyl Ketone	78-93-3	200 ppm	200 ppm
2-Butoxyethanol	111-76-2	50 ppm	20 ppm
Carbon Dioxide	124-38-9	5000 ppm	5000 ppm
Petroleum Oil (as oil mist)	64742-65-0	5 mg/m^3	5 mg/m^3

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

mild, solvent

Odor Threshold

0.5 ppm

pH

not relevant

Freezing Point

<-107°F

Boiling Range

133 - 1100°F

Flash Point and Method

<20°F by closed-cup tester

Explosion Limits in Air

2.2 - 13.2% by volume (composite)

Evaporation Rate

5.1 (n-Butyl Acetate=1.0)

Vapor Pressure, as supplied

80-120 PSI (typical)

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

Vapor Density
>1.0
Specific Gravity
0.844 at 68°F
Density
7.03 lb/gal at 68°F
Water Solubility
practically insoluble
n-Octanol/Water Partition Coefficient (log P_{ow})
0.1 (composite)
Viscosity
0.4 cSt at 68°F
Volatility
95-99% by weight
Auto-ignition temperature
>800°F (composite)

Other Information

VOC Content
10% by weight (EPA Method 24)
10% by weight (consumer products)
VOC Composite Partial Pressure, PP_C
3.7 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 expected

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
severe 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
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
central nervous system (narcotic effects)
Repeated Exposure
blood/blood system effects

Numerical Measures of Acute Toxicity

Oral (Rat)
LD_{50}: 4,000 mg/kg (derived)
Dermal (Rabbit)
LD_{50}: 4,890 mg/kg (derived)
Inhalation (Rat)
LC_{50}: 32 mg/L (derived)

Additional Toxicological Information

Skin Irritation/Corrosion (Rabbit)
skin irritant
Serious Eye Damage/Irritation (Rabbit)
eye irritant

Additional Toxicological Information (cont'd)

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

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

Aquatic Toxicity

Vertebrates (Fish)

Acute Toxicity

LC_{50}: >100 mg/L (derived)

Chronic Toxicity

NOEC: not available

Invertebrates (Water Flea)

Acute Toxicity

LC_{50}: >100 mg/L (derived)

Chronic Toxicity

NOEC: not available

Aquatic Plants (Freshwater Algae)

Acute Toxicity

EC_{50}: >100 mg/L (derived)

Chronic Toxicity

NOEC: >100 mg/L (derived)

Terrestrial Toxicity

Invertebrate (Earthworm)

LC_{50}: not available

Persistence and Degradability

Persistence

not expected to be persistent

Degradability

rapidly degradable

Bioaccumulative Potential

Bioaccumulation Potential Assessment

does not bioaccumulate

Bioaccumulation Factor

500 (petroleum oil)

Mobility in Soils

Mobility in Soils Assessment

very mobile in soils—may contaminate groundwater

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

3.3 (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. 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 D001– ignitable; D035 – methyl ethyl ketone

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, Methyl Ethyl Ketone

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)

2-Butoxyethanol ("certain glycol ethers"), Methyl Ethyl Ketone

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

Section 112 – Hazardous Air Pollutants

Methyl Ethyl Ketone

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

not regulated

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 (CPSC)

Federal Hazardous Substances Act (FHSA)

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 "Carburetor or Fuel-injection Air Intake Cleaner" (complies)

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

45% as "Carburetor or Fuel-injection Air Intake 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 "Carburetor or Fuel-injection Air Intake Cleaner" (complies)
Massachusetts
"Right-to-Know" Legislation – Substance List (105 CMR 670.000)
Acetone, Methyl Acetate, Methyl Ethyl Ketone (MEK), 2-Butoxyethanol, Carbon Dioxide
New Jersey
"Right-to-Know" Legislation – Hazardous Substance List (34:5A-1, et seq.)
Acetone, Methyl Acetate, Methyl Ethyl Ketone, 2-Butoxyethanol, Carbon Dioxide
Pennsylvania
"Right-to-Know" Legislation – Hazardous Substance List (Chapter 323)
2-Propanone; Acetic Acid, Methyl Ester; 2-Butanone; 2-Butoxyethanol; 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_{50} – Median Effective Concentration
IATA – International Air Transport Association
ICAO – International Civil Aviation Organization
IMDG – International Maritime Dangerous Goods
IMO – International Maritime Organization
LC_{50} – Median Lethal Concentration
LD_{50} – Median Lethal Dose
N/A – Not Applicable
NE – Not Established
NFPA – National Fire Protection Association
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
April 1, 2026
Date of Previous Revision
June 8, 2015
Primary Revision Change(s)
General update
Document Applicability
This safety data sheet applies to part number 2209 manufactured on or after November 1, 2018.

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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.