Safety Data Sheet

Section 1 – Identification of the Mixture and of the Company

Product Identification

Primary Identifier(s) Used on the Label
Berryman *HYBRID FUEL SYSTEM CLEANER*
Product Synonym(s)
blend "HYBFSC"
Product Number(s)
8810

Relevant Identified Uses and Uses Advised Against

Recommended Uses
gasoline fuel additive
Uses Advised Against
not for use in diesel engines

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 Liquid – Category 2
Health Hazards
Skin Irritant – Category 2
Eye Irritant – Category 2A
Carcinogen – Category 2
Reproductive Toxicity – Category 2
Specific Target Organ Toxicity - Single Exposure – Category 1 (central nervous system, eyes)
Specific Target Organ Toxicity - Repeated Exposure – Category 2 (blood/blood system, central nervous system)
Aspiration Hazard – Category 1
Environmental Hazard - Acute – Category 2
Environmental Hazard - Chronic – Category 3

Allocation of Label Elements

Chemical Identity
Berryman *HYBRID FUEL SYSTEM CLEANER*
Pictograms



Signal Word
DANGER
Hazard Statements
H225 – Highly flammable liquid and vapor.
H304 – May be fatal if swallowed and enters airways.
H315 – Causes skin irritation.
H319 – Causes serious eye irritation.
H351 – Suspected of causing cancer.
H361d – Suspected of damaging the unborn child.
H370 – Causes damage to central nervous system and eyes.
H373 – May cause damage to blood/blood system and central nervous system through prolonged or repeated exposure.
H401 – Toxic to aquatic life.
H412 – Harmful to aquatic life with long-lasting effects.
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.
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.
P260 – Do not breathe mist or vapor.
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
P321 – Specific treatment available in this document in "Section 4 – First Aid Measures."
P331 – Do NOT induce vomiting.
P301/P310 – IF SWALLOWED: Immediately call POISON CONTROL CENTER, hospital emergency room, or doctor.
P303/P361/P353/P312 – IF ON SKIN (OR HAIR): Immediately take off all contaminated clothing. Rinse skin with soap and water or shower. 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/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 fog, dry chemical, alcohol-resistant foam, or carbon dioxide to extinguish.
Storage Precautionary Statements
P405 – Store locked-up.
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
Toluene	108-88-3	40-50%
n-Propanol	71-23-8	15-25%
Acetone	67-64-1	10-20%
Kerosene	8008-20-6	5-10%
Methanol	67-56-1	1-5%
2-Butoxyethanol	111-76-2	1-5%
Methyl Ethyl Ketone	78-93-3	1-5%
2, 6-Di-tertiary-Butylphenol	128-39-2	1-5%
Ethylbenzene	100-41-4	<0.3%

Section 4 – First Aid Measures

Description of First Aid Measures

Ingestion

Immediately call poison control center, hospital emergency room, or doctor. Do NOT induce vomiting. Drink 1-2 glasses of milk or water.

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; 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

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 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, organic oxygenates, ammonia, amines, and oxides of carbon and nitrogen.

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

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.

Additional Information

National Fire Protection Association (NFPA)

flammable liquid classification IB

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 mist or vapor. 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

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

Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. 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. 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. Avoid release to the environment.

Conditions and Considerations for Safe Storage

Highly flammable liquid and vapor. Keep away from heat, sparks, open flames, and hot surfaces. No smoking. Keep out of reach of children. Store locked-up and in accordance with NFPA flammable liquid classification IB recommendations.

Section 8 – Exposure Controls/Personal Protection

Component	CAS RN	OSHA PEL	ACGIH TLV
Toluene	108-88-3	200 ppm	20 ppm
n-Propanol	71-23-8	100 ppm	100 ppm
Acetone	67-64-1	1000 ppm	500 ppm
Kerosene	8008-20-6	NE	200 mg/m^3
Methanol	67-56-1	200 ppm	200 ppm
2-Butoxyethanol	111-76-2	50 ppm	20 ppm
Methyl Ethyl Ketone	78-93-3	200 ppm	200 ppm
Ethylbenzene	100-41-4	100 ppm	100 ppm

Exposure Controls

Appropriate Engineering Controls

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, amber to brown

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

Odor
solvent

Odor Threshold
0.5 ppm

pH
not relevant

Freezing Point
<68°F

Boiling Range
133 - 580°F

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

Explosion Limits in Air
1.5 - 9.3% by volume

Evaporation Rate
1.7 (n-Butyl Acetate=1.0)

Vapor Pressure, as supplied
37 mm of Hg at 68°F

Vapor Density
>1.0

Specific Gravity
0.85 at 68°F

Density
7.1 lb/gal at 68°F

Water Solubility
insoluble

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

Viscosity
0.9 cSt at 68°F

Volatility
85 - 90% by weight

Auto-ignition Temperature
830°F (composite)

Decomposition Temperature
not available

Other Information

VOC Composite Partial Pressure, PPC
not regulated

VOC Content
not regulated

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
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

gastrointestinal disturbances, including upset stomach and cramping

Skin Contact

moderate irritation

Eye Contact

blurred vision, severe eye irritation

Inhalation

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

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

blurred vision, temporary corneal damage

Inhalation

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

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

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

Group 2B – Possible Human Carcinogen (Ethylbenzene)

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 toxicants (Toluene and 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
central nervous system (narcotic) and eyes effects
Repeated Exposure
blood/blood system and brain/central nervous system (CNS) effects

Numerical Measures of Acute Toxicity

Oral (Rat)
LD_{50}: 2600 mg/kg (derived)
Dermal (Rabbit)
LD_{50}: >5000 mg/kg (derived)
Inhalation (Rat)
LC_{50}: 28 mg/L (derived)

Additional Toxicological Information

Skin Irritation/Corrosion (Rabbit)
skin irritant
Serious Eye Damage/Irritation (Rabbit)
severe eye irritant
Respiratory Sensitization
does not cause respiratory sensitization
Skin Sensitization
does not cause skin sensitization
Aspiration Hazard
known aspiration hazard

Section 12 – Ecological Information

General Ecological Assessment/Overview

Toxic to aquatic life. Harmful to aquatic life with long-lasting effects. Very mobile in soils which may lead to contamination of groundwater.

Aquatic Toxicity

Vertebrates (Fish)
Acute Toxicity
LC_{50}: 44 mg/L (derived)
Chronic Toxicity
NOEC: not available
Invertebrates (Water Flea)
Acute Toxicity
LC_{50}: 3.7 mg/L (derived)
Chronic Toxicity
NOEC: not available
Aquatic Plants (Freshwater Algae)
Acute Toxicity
EC_{50}: 3.6 mg/L (derived)
Chronic Toxicity
NOEC: not available

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
200 (Kerosene)

Mobility in Soils

Mobility in Soils Assessment

very mobile in soils—may contaminate groundwater

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

4.3 (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. Acutely toxic to aquatic life—do not pour into waterways. Harmful to aquatic life with long-lasting effects—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 D001– ignitability; D035 – methyl ethyl ketone; and 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

UN1993, Flammable Liquids, n.o.s., (contains Toluene and Acetone), 3, PG II

Exemption Eligibility

When shipped by ground, this product may be eligible for a “Limited Quantity” exception per §49 CFR 173.150.

Transportation by Air – ICAO/IATA

Shipping Description

UN1993, Flammable Liquids, n.o.s., (contains Toluene and Acetone), 3, PG II

Exemption Eligibility

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

Transportation by Water – IMO/IMDG

Shipping Description

UN1993, Flammable Liquids, n.o.s., (contains Toluene and Acetone), 3, PG II

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)

Toluene, Acetone, Methanol, Methyl Ethyl Ketone, Ethylbenzene

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

acute toxicity, chronic toxicity, fire hazard

Section 313 – Toxic Chemicals (40 CFR 372.65)

Toluene, Methanol, 2-Butoxyethanol (as "Certain Glycol Ethers"), Ethylbenzene

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

Section 112 – Hazardous Air Pollutants

Toluene, Methanol, Methyl Ethyl Ketone, Ethylbenzene

Regulation of Fuels and Fuel Additives

This product complies with the requirements of §40 CFR 80 and must be used in a manner consistent with the directions on the label.

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: Flammable. Harmful or fatal if swallowed. Vapor harmful. Eye and skin irritant. Keep out of the reach of children.

UNITED STATES – SELECT REGIONAL CONSIDERATIONS

Ozone Transport Commission (OTC) – Model Rule VOC Limit and Category
not regulated as a fuel additive
Lake Michigan Air Directors Consortium (LADCO) – Model Rule VOC Limit and Category
not regulated as a fuel additive

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 labeled to satisfy the 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
not regulated as a fuel additive
Massachusetts
"Right-to-Know" Legislation – Substance List (105 CMR 670.000)
Toluene, Propanol, Acetone, Kerosene, Methanol, 2-Butoxyethanol, Methyl Ethyl Ketone, Ethylbenzene
New Jersey
"Right-to-Know" Legislation – Hazardous Substance List (34:5A-1, et seq.)
Toluene, Propyl Alcohol, Acetone, Kerosene, Methanol, 2-Butoxyethanol, Methyl Ethyl Ketone, Ethylbenzene
Pennsylvania
"Right-to-Know" Legislation – Hazardous Substance List (Chapter 323)
Methylbenzene, 1-Propanol, 2-Propanone, Kerosene (Petroleum), Methanol, 2-Butoxyethanol, 2-Butanone, Ethylbenzene

INTERNATIONAL – SELECT REGULATIONS

Canada
Environment Canada – Domestic Substances List (DSL)
All chemicals known to be present in this product are either listed on the DSL or are not required to be.
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 either listed on the IECSC or are not required to be.
European Union
European Chemical Agency – European Inventory of Existing Chemical Substances (EINECS)
All chemicals known to be present in this product are either listed on the EINECS or are not required to be.

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

Index of Abbreviations (cont'd)

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
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
August 10, 2026
Date of Previous Revision
Not applicable
Primary Revision Change(s)
Initial document
Document Applicability
This safety data sheet only applies to part number 2609 manufactured on or after August 1, 2026.

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.