



Safety Data Sheet

Section 1 – Identification of the Mixture and of the Company

Product Identification

Primary Identifier(s) Used on the Label

Berryman *ENGINE OIL EXTENDER*

Product Synonym(s)

blend "X10"

Product Number(s)

1210

Relevant Identified Uses and Uses Advised Against

Recommended Uses

gasoline and diesel engine oil additive

Uses Advised Against

none specific

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

Health Hazards

Eye Irritant – Category 2A

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

Environmental Hazard - Chronic – Category 1

Allocation of Label Elements

Chemical Identity

Berryman *ENGINE OIL EXTENDER*

Pictograms



Signal Word

WARNING

Hazard Statements

H319 – Causes serious eye irritation.

H373 – May cause damage to blood/blood system and liver through prolonged or repeated exposure.

H410 – Very toxic to aquatic life with long-lasting effects.

Prevention Precautionary Statements

P101 – Keep out of reach of children.

P102 – Read label before use.

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

P264 – Wash thoroughly with soap and water after handling.

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.

P391 – Collect spillage.

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

Continue rinsing.

P337/P313 – If eye irritation persists, get medical advice/attention.

Storage Precautionary Statements

none

Disposal Precautionary Statements

P501 – Dispose of contents/container in accordance with all local, regional, national, and international regulations/requirements, 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>
Petroleum Oil	64742-65-0	45-55%
Polybutylene Succinimide	confidential	9-12%
Dialkylated Diphenylamine	68411-46-1	6-10%
Zinc Dialkyl Dithiophosphate	proprietary	2-5%
Organomolybdenum Complex	proprietary	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

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**

none known

Delayed

none known

Indications of Need for Immediate Medical Attention and Specific Treatment Required**Indications of Need for Immediate Medical Attention**

none known

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; organic oxygenates; organometallic compounds of zinc and molybdenum; sulfides, and phosphites/phosphides; ammonia and amino compounds; mercaptans; and oxides of carbon, nitrogen sulfur, phosphorus, zinc, and molybdenum.

Special Protective Equipment and Precautions for Firefighters

Special Protective Equipment

Firefighters should employ SCBA and full protective gear, including shield, as product may vent, rupture, or explode violently at greatly elevated temperatures.

Precautions and Procedures

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 III B

Section 6 – Accidental Release Measures

Personal and Environmental Precautions

Personal Precautions

Do not breathe fumes, gas, mist, vapor, or spray. Wash thoroughly with soap and water after handling. Wear protective gloves, protective clothing, and eye or face protection.

Environmental Precautions

Avoid release to the environment.

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. Other useful supplies may include a mop and mop bucket. Remediate affected area as necessary.

Large Spills

Remove source from area if safe to do so. Use a mop and mop bucket or 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 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.

Environmental Precautions

Avoid release to the environment.

Conditions and Considerations for Safe Storage

Keep out of reach of children.

Section 8 – Exposure Controls/Personal Protection

<u>Component</u>	<u>CAS RN</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
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 impermeable gloves 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, dark amber to dark brown

Odor

practically odorless

Odor Threshold

N/A

pH

not relevant

Freezing Point

<0°F

Boiling Range

480 - 1100°F

Flash Point and Method

>300°F by closed-cup tester

Explosion Limits in Air

0.8 - 7.2% by volume

Evaporation Rate

0.0 (n-Butyl Acetate=1.0)

Vapor Pressure, as supplied

0.0 mm of Hg at 68°F

Vapor Density

<1.0

Specific Gravity

0.91 at 68°F

Density

7.6 lb/gal at 68°F

Water Solubility

insoluble

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

not available

Viscosity

40 - 50 cSt at 68°F

Volatility

0% by weight

Auto-ignition temperature

640°F (composite)

Decomposition temperature

Unknown

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

May react with direct sunlight.

Possibility of Hazardous Reactions

none known

Conditions to Avoid

none specific

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

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

mild skin irritation

Eye Contact

blurred vision, moderate eye irritation

Inhalation

virtually nontoxic by short-term inhalation

Immediate, Delayed, and Chronic Effects

SHORT-TERM EXPOSURE

Potential Immediate Effects

Ingestion

gastrointestinal disturbances

Skin Contact

none known

Eye Contact

blurred vision

Inhalation

none known

Potential Delayed Effects

Ingestion

none known

Skin Contact

none known

Eye Contact

none known

Inhalation

none known

LONG-TERM EXPOSURE

Potential Immediate Effects

none known

Potential Delayed Effects

liver damage

Potential Chronic Health Effects

Carcinogenicity

International Agency for Research on Cancer (IARC) Monographs

all components either “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

none known

Repeated Exposure

blood/blood system and liver effects

Numerical Measures of Acute Toxicity

Oral (Rat)

LD₅₀: 4500 mg/kg (derived)

Dermal

LD₅₀: 2120 mg/kg (derived)

Inhalation (Rat)

LC₅₀: not relevant

Additional Toxicological Information

Skin Irritation/Corrosion (Rabbit)

slight 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

Very toxic to aquatic life with long-lasting effects.

Aquatic Toxicity

Vertebrates (Fish)

Acute Toxicity

LC₅₀: 100 mg/L (derived)

Chronic Toxicity

NOEC: not available

Invertebrates (Water Flea)

Acute Toxicity

LC₅₀: 47 mg/L (derived)

Chronic Toxicity

NOEC: not available

Aquatic Plants (Freshwater Algae)

Acute Toxicity

EC₅₀: 42 mg/L (derived)

Chronic Toxicity

NOEC: not available

Terrestrial Toxicity

Invertebrate (Earthworm)

LC₅₀: not available

Persistence and Degradability

Persistence

insufficient persistence data available

Degradability

non-rapidly degradable

Bioaccumulative Potential

Bioaccumulation Potential Assessment

may bioaccumulate (Dialkylated Diphenylamine)

Bioaccumulation Factor

not available

Mobility in Soils

Mobility in Soils Assessment

not mobile in soils

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

not available

Results of PBT and vPvB Assessment

not a persistent, bioaccumulative, toxic chemical (PBT); not very persistent or very bioaccumulative (vPvB)

Other Adverse Effects

none known

Section 13 – Disposal Considerations

General Assessment/Overview

Dispose of waste in accordance with all applicable regulations. Very toxic to aquatic life with long-lasting effects—do not pour into waterways.

RCRA Hazardous Waste Code(s) (40 CFR 261.20-33)

Based on this material as-supplied, used or unwanted product may not be regulated as RCRA hazardous waste based on composition and flammability characteristics

Section 14 – Transportation Information

Transportation by Ground – US Department of Transportation

Shipping Description

not regulated by DOT

Transportation by Air – ICAO/IATA

Shipping Description

not regulated by ICAO

Transportation by Water – IMO/IMDG

Shipping Description

not regulated by IMO

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)

none

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

acute toxicity, chronic toxicity

Section 313 – Toxic Chemicals (40 CFR 372.65)

none

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

Section 112 – Hazardous Air Pollutants

none

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

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: Harmful or fatal if swallowed. 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

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

not regulated

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

not regulated

Massachusetts

"Right-to-Know" Legislation – Substance List (105 CMR 670.000)

none

New Jersey

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

none

Pennsylvania

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

none

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

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 Concentration
 LD₅₀ – 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

June 26, 2015

Date of Previous Revision

not applicable—initial Safety Data Sheet

Primary Revision Change(s)

not applicable

Document Applicability

This safety data sheet only applies to part number 1210 manufactured on or after March 27, 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.