# Safety Data Sheet

## Section 1 – Identification of the Mixture and of the Company

### Product Identification

**Primary Identifier(s) Used on the Label**
Berryman *B-33 Engine Degreaser*
**Product Synonym(s)**
blend "AED"
**Product Number(s)**
1133

### Relevant Identified Uses and Uses Advised Against

**Recommended Uses**
engine degreaser
**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**
Compressed Gas
**Health Hazards**
Eye Irritant – Category 2A
Environmental Hazard - Acute – Category 3

### Allocation of Label Elements

**Chemical Identity**
Berryman *B-33 Engine Degreaser*
**Pictograms**

**Signal Word**
WARNING
**Hazard Statements**
H280 – Contains gas under pressure; may explode if heated.
H319 – Causes serious eye irritation.
H402 – Harmful to aquatic life.

Prevention Precautionary Statements
P101 – Keep out of reach of children.
P102 – Read label before use.
P251 – Do not pierce or burn, even after use.
P264 – Wash thoroughly after handling.
P273 – Avoid release to the environment.
P280 – Wear protective gloves, protective clothing, and eye or face protection.
Response Precautionary Statements
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
P410/P403 – Protect from sunlight. Store in a well-ventilated place.
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 |
|---|---|---|
| Water | 7732-18-5 | 85-90% |
| Alkylbenzenesulfonic Acid | 27176-87-0 | 3-5% |
| Triethanolamine | 102-71-6 | 3-5% |
| Linear Alcohol Ethoxylate | 34398-01-1 | 1-3% |
| Dinitrogen | 7727-37-9 | 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 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
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
none known
Specific Treatment and Notes to Physician
no additional information available

## Section 5 – Firefighting Measures

### Fire Extinguishing Media
Support for Combustion
Product does not support combustion, as-supplied.
Suitable Extinguishing Media
water spray, water fog, dry chemical, alcohol-resistant foam, or carbon dioxide
Unsuitable Extinguishing Media
none known

### Special Hazards/Considerations

**Combustion Products**

Combustion in the presence of air may yield hydrocarbons; organic oxygenates and sulfides; ammonia and amino compounds, mercaptans; and oxides of carbon, nitrogen and sulfur.

### 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 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**

Wash thoroughly after handling. 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. 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**

Wear protective gloves, protective clothing, and eye or face protection. Wash thoroughly 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. Store in a well-ventilated place. Store locked-up. Store according to NFPA Aerosol Level 1 recommendations.

## Section 8 – Exposure Controls/Personal Protection

| Component | CAS RN | OSHA PEL | ACGIH TLV |
|---|---|---|---|
| Triethanolamine | 102-71-6 | 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, 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 to very light yellow
**Odor**
practically odorless
**Odor Threshold**
not available
**pH**
9.5 - 9.9
**Freezing Point**
25 - 30°F
**Boiling Range**
212 - 600°F
**Flash Point and Method**
none by closed-cup tester
**Explosion Limits in Air**
not expected
**Evaporation Rate**
0.3 (n-Butyl Acetate=1.0)
**Vapor Pressure, as supplied**
80 - 120 PSI (typical)
**Vapor Density**
<1.0
**Specific Gravity**
1.020 at 68°F
**Density**
8.50 lb/gal at 68°F
**Water Solubility**
completely soluble
**n-Octanol/Water Partition Coefficient (log $P_{ow}$)**
<-1.0 (composite)
**Viscosity**
1 - 2 cSt at 68°F
**Volatility**
85 - 90% by weight
**Auto-ignition temperature**
not expected
**Decomposition temperature**
unknown

### Other Information

**VOC Content**
0% by weight (EPA Method 24)
0% by weight (consumer products)
**VOC Composite Partial Pressure, PPC**
0.0 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 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 powered zinc, aluminum, magnesium, potassium, and sodium

### 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

virtually nontoxic after single skin contact

Eye Contact

severe eye irritation

Inhalation

virtually nontoxic by short-term inhalation

### Immediate, Delayed, and Chronic Effects

*SHORT-TERM EXPOSURE*

Potential Immediate Effects

Ingestion

none known

Skin Contact

none known

Eye Contact

none known

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

none known

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
none known

### Numerical Measures of Acute Toxicity

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

### Additional Toxicological Information

Skin Irritation/Corrosion (Rabbit)
not irritating to skin
Serious Eye Damage/Irritation (Rabbit)
severe 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

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

### Aquatic Toxicity

Vertebrates (Fish)
Acute Toxicity
$LC_{50}$: 42 mg/L (derived)
Chronic Toxicity
NOEC: not available
Invertebrates (Water Flea)
Acute Toxicity
$LC_{50}$: 67 mg/L (derived)
Chronic Toxicity
NOEC: not available
Aquatic Plants (Freshwater Algae)
Acute Toxicity
$EC_{50}$: 88 mg/L (derived)
Chronic Toxicity
NOEC: not available

### Terrestrial Toxicity

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

### Persistence and Degradability

Persistence
not expected to be persistent
Degradability
rapidly degradable

### Bioaccumulative Potential

Bioaccumulation Potential Assessment
does not bioaccumulate
Bioaccumulation Factor
not available

### Mobility in Soils

Mobility in Soils Assessment
very mobile in soils—may contaminate groundwater
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. Harmful to aquatic life—do not pour into waterways.

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

Based on this material as-supplied, 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
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, 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)
none
Section 311/312 – Hazard Categorization (40 CFR 370.40)
acute toxicity, sudden release of pressure
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: 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
10% as "Engine Degreaser, aerosol" (complies)
Lake Michigan Air Directors Consortium (LADCO) – Model Rule VOC Limit and Category
35% as "Engine Degreaser, aerosol" (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 (Prop 65)
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 "Engine Degreaser, aerosol" (complies)
Massachusetts
"Right-to-Know" Legislation – Substance List (105 CMR 670.000)
Dodecylbenzenesulfonic Acid, Triethanolamine, Nitrogen
New Jersey
"Right-to-Know" Legislation – Hazardous Substance List (34:5A-1, et seq.)
Dodecylbenzenesulfonic Acid, Triethanolamine, Nitrogen
Pennsylvania
"Right-to-Know" Legislation – Hazardous Substance List (Chapter 323)
Water, Alkylbenzenesulfonic Acid, 2,2',2''-Nitrilotris-ethanol, Nitrogen

*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 | 0 |
| 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
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 11, 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 1133 manufactured on or after January 1, 2015.

## Document Author

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## Legal Disclaimer

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