



Safety Data Sheet

SECTION 1 – IDENTIFICATION

Name, Address, and Telephone of the Responsible Party

Date: 03/16/2018

Independent Explosives, Inc
88 Gold Ledge Ave,
Auburn, NH 03032

Supersedes: 08/24/2015

Phone: (860) 243-0137 Toll Free: (888) 658-3966

Product Identifier

Product Form: Mixture

Product Name: 1966 Emulsion Blend

Other Means of Identification

Product Class: Emulsion

Trade Names:

1966 Emulsion Blend

Intended Use of the Product

Industrial applications

Emergency Telephone Numbers: DAY ONLY: 888-658-3966

FOR 24 HOUR **EMERGENCY**, CALL CHEMTREC (USA) 800-424-9300

CANUTEC (CANADA) 613-996-6666

SECTION 2 – HAZARD(S) IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Expl. 1.5 H205

Eye Irrit. 2A H319

Carc. 2 H351

STOT RE 2 H373

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US)

: Danger

Hazard Statements (GHS-US)

: H205 - May mass explode in fire.
H319 - Causes serious eye irritation.
H351 - Contains materials suspected of causing cancer.
H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements (GHS-US)

: P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat, hot surfaces, open flames, sparks. - No



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smoking.

P220 - Keep/Store away from combustible materials.

P221 - Take any precaution to avoid mixing with combustible materials.

P240 - Ground/bond container and receiving equipment. Consult manufacturer for detailed guidance on appropriate grounding/bonding.

P260 - Do not breathe dust, mist, vapors.

P264 - Wash hands, forearms and exposed areas thoroughly after handling.

P273 - Avoid release to the environment.

P280 - Wear eye protection, protective clothing, protective gloves.

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.

P314 - Get medical advice/attention if you feel unwell.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P370+P378 - In case of fire: Do NOT attempt to fight fire.

P370+P380 - In case of fire: Evacuate area.

P372 - Explosion risk in case of fire.

P373 - DO NOT fight fire when fire reaches explosives.

P401 - Store as defined in the Explosives Act of Canada and the provisions of the Bureau of Alcohol, Tobacco and Firearms regulations contained in 27 CFR Part 555..

P405 - Store locked up.

P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Name	Product identifier	% (w/w)	Ingredient Classification (GHS-US)
Ammonium nitrate	(CAS No) 6484-52-2	65 - 90	Ox. Sol. 3, H272 Eye Irrit. 2A, H319
Fuel oil / mineral oil blend	(CAS No) 68476-30-2	3 - 9	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Carc. 2, H351 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 3, H402 Aquatic Chronic 2, H411
Polymeric Surfactant	NA	0.5 - 2	Not available

More than one of the ranges of concentration prescribed by Controlled Products Regulations has been used where necessary, due to varying composition.

Ingredients, other than those mentioned above, as used in this product are not hazardous as defined under current Department of Labor regulations, or are present in deminimus concentrations (less than 0.1% for carcinogens, less than 1.0% for other hazardous materials).

SECTION 4 - FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label)



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where possible).

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

Skin Contact: Remove contaminated clothing and wash before reuse. Gently wash with plenty of soap and water.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

Ingestion: Rinse mouth. Do not induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms and Effects Both Acute and Delayed

General: May cause serious eye irritation. Contains material suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.

Inhalation: May cause respiratory irritation.

Skin Contact: May cause skin irritation.

Eye Contact: May cause serious eye irritation.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: Contains material suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If ingested, causes methemoglobinemia – emergency response should treat appropriately, such as by intravenous administration of methylene blue.

SECTION 5 - FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: DO NOT FIGHT FIRES INVOLVING EXPLOSIVES.

Unsuitable Extinguishing Media: Do not attempt to fight fires involving explosive materials. Evacuate all personnel to a predetermined safe location, no less than 2,500 feet in all directions.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Can explode or detonate under fire conditions. Burning material may produce toxic vapors.

Explosion Hazard: Explosion risk in case of fire. This product is an explosive with mass detonation hazard. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

Reactivity: Stable under normal conditions. May explode when subjected to fire, supersonic shock or high-energy projectile impact, especially when confined or in large quantities.

Advice for Firefighters

Firefighting Instructions: DO NOT ATTEMPT TO FIGHT FIRES INVOLVING EXPLOSIVE MATERIALS. Evacuate all personnel to a predetermined safe location, no less than 2,500 feet in all directions. Can explode or detonate under fire conditions. Burning material may produce toxic vapors.

Hazardous Combustion Products: Carbon Monoxide (CO) and Nitrogen Oxides (NO_x)

Reference to Other Sections: Refer to section 9 for flammability properties.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid all contact with skin, eyes, or clothing. Avoid breathing (vapor, mist, dust).

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Stop release if safe to do so. Eliminate ignition sources. Ventilate area.

Environmental Precautions



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Prevent entry to sewers and public waters.

Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes to prevent migration and entry into sewers or streams. Do not use combustible absorbents and do not mix with other materials.

Methods for Cleaning Up: Collect spillage for possible reuse. Clean up spills immediately and dispose of waste in accordance with appropriate Federal, State and local regulations.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection

SECTION 7 - HANDLING AND STORAGE

Precautions for Safe Handling

General: It is recommended that users of explosives material be familiar with the Institute of Makers of Explosives Safety Library publications. Comply with the safety library publication No. 4 "Warnings and Instructions" as adopted by the Institute of Makers of Explosives.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and forearms thoroughly after handling. Do not eat, drink or smoke when using this product.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Contact manufacturer for appropriate grounding/bonding guidance. Comply with applicable regulations.

Storage Conditions: Store as defined in the Explosives Act of Canada and the provisions of the Bureau of Alcohol, Tobacco and Firearms regulations contained in 27 CFR Part 555. Store in a dry, cool and well-ventilated place.

Keep/Store away from direct sunlight, extremely high or low temperatures, heat sources, ignition sources. Keep container closed when not in use. Store locked up.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers. Zinc. Copper and its alloys. Organic materials. Combustible materials.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), or OSHA (PEL).

Fuels, diesel, no. 2 (68476-30-2)

USA ACGIH	ACGIH TWA (mg/m ³)	100 mg/m ³ (inhalable fraction and vapor, as total hydrocarbons) 8 h (skin)
USA ACGIH	ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route, Confirmed Animal Carcinogen with Unknown Relevance to Humans

Exposure Controls

Appropriate Engineering Controls: Ventilation System: Indoors: A system of local and / or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details. Use explosion-proof equipment. / Outdoors: Work upwind.

Personal Protective Equipment: Personal Respirators (NIOSH Approved): A respirator is not needed under normal and intended conditions of use. If the exposure limit is exceeded and engineering controls are not feasible, use a mask with an organic vapor cartridge or positive pressure air supplied (SCBA) unit. Breathing air quality must meet the requirements of the OSHA respiratory protection standard (29CFR1910.134).



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Skin Protection: Gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure - Neoprene, PVC.

Eye Protection: Use chemical safety goggles and / or a full face shield where splashing is possible.

Hygiene Measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: White to tan colored thick cream. If aluminum is present, gray metal particles will be visible. If ammonium nitrate prill is present, white to tan colored granules will be visible.
Odor	: Slight odor of fuel oil
Odor Threshold	: Not available
pH	: Not available
Evaporation Rate	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: Not available
Flash Point	: 165 °F (74 °C) (PMCC)
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Density	: Not available
Specific Gravity	: 1.20 – 1.30
Solubility	: Not available
Partition Coefficient: N-Octanol/Water	: Not available
Viscosity	: Not available
Explosive properties	: Explosive; fire, blast or projection hazard
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge.

SECTION 10 - STABILITY AND REACTIVITY



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Reactivity: May cause or intensify fire; oxidizer. May accelerate the burning of other combustible materials. Contact with organic material or combustible material may cause an explosive situation.

Chemical Stability: Stable under recommended handling and storage conditions (see section 7). May explode when subjected to fire, supersonic shock or high-energy projectile impact, especially when confined or in large quantities.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Avoid temperatures above (212°F (100°C)).

Incompatible Materials: Avoid all contamination, especially peroxides and chlorates. Alkaline contamination may liberate ammonia fumes.

Hazardous Decomposition Products: Gaseous nitrogen oxides and carbon oxides: Toxic decomposition products including carbon monoxide (CO) may migrate to off blast-site areas.

SECTION 11 - TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Not classified

Serious Eye Damage/Irritation: Causes serious eye irritation.

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not classified

Carcinogenicity: Contains an ingredient suspected of causing cancer.

Specific Target Organ Toxicity (Repeated Exposure): May cause damage to organs through prolonged or repeated exposure.

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: May cause respiratory irritation.

Symptoms/Injuries After Skin Contact: May cause skin irritation.

Symptoms/Injuries After Eye Contact: May cause serious eye irritation.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects. Overexposure to this material may result in methemoglobinemia. Methemoglobinemia decreases the blood's ability to carry oxygen and results in symptoms such as dizziness, drowsiness, headache, shortness of breath, blue skin and lips, rapid heart rate, unconsciousness, and possibly death.

Chronic Symptoms: Contains an ingredient suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Fuels, diesel, no. 2 (68476-30-2)

LD50 Oral Rat	18.7 - 24.9 ml/kg
LD50 Dermal Rabbit	> 4300 mg/kg
ATE US (dust, mist)	3.60 mg/l/4h

Ammonium nitrate (6484-52-2)

LD50 Oral Rat	2217 mg/kg
LC50 Inhalation Rat	> 88.8 mg/l/4h



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SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecology - General: This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

Ecology - Water: Harmful to aquatic life with long lasting effects.

Fuels, diesel, no. 2 (68476-30-2)

LC50 Fish 1 57 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])

Persistence and Degradability Not available

Bioaccumulative Potential

Ammonium nitrate (6484-52-2)

BCF fish 1 (no bioaccumulation expected)

Log Pow -3.1 (at 25 °C)

Mobility in Soil Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Treatment Methods: Uncontaminated and contaminated material may be placed in large diameter boreholes and detonated so that the explosive energy is utilized as originally intended. Dispose of under direct supervision of a qualified person according to local, state and federal regulations. Call Maine Drilling & Blasting Safety and Compliance Department for recommendations and assistance.

Additional Considerations: This material may become a hazardous waste under certain conditions and must be collected, labeled and disposed of per state and federal hazardous waste regulations.

SECTION 14 - TRANSPORT INFORMATION

In Accordance with DOT

Proper Shipping Name : EXPLOSIVE, BLASTING, TYPE E (AGENT, BLASTING, TYPE E)

Hazard Class : 1.5D

Identification Number : NA0332

Label Codes : 1.5D

Packing Group : II

ERG Number : 140

In Accordance with IMDG

Proper Shipping Name : EXPLOSIVE, BLASTING, TYPE E (AGENT, BLASTING, TYPE E)

Hazard Class : 1

Identification Number : UN0332

Label Codes : 1.5D

EmS-No. (Fire) : F-B

EmS-No. (Spillage) : S-Y

In Accordance with IATA

Proper Shipping Name : AGENT, BLASTING TYPE E

Identification Number : UN0332

Hazard Class : 1

Label Codes : 1.5D

ERG Code (IATA) : 1L

In Accordance with TDG





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Proper Shipping Name : EXPLOSIVE, BLASTING, TYPE E
Packing Group : II
Hazard Class : 1.5D
Identification Number : UN0332
Label Codes : 1.5D



SECTION 15 - REGULATORY INFORMATION

US Federal Regulations

MDB Blend 1966

SARA Section 311/312 Hazard Classes

Immediate (acute) health hazard
Delayed (chronic) health hazard
Sudden release of pressure hazard
Fire hazard

Fuels, diesel, no. 2 (68476-30-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Ammonium nitrate (6484-52-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Aluminum (7429-90-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on SARA Section 313 (Specific toxic chemical listings)

SARA Section 313 - Emission Reporting



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US State Regulations

Fuels, diesel, no. 2 (68476-30-2)

U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour
 U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
 U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances
 U.S. - New Jersey - Environmental Hazardous Substances List
 RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
 U.S. - California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups
 U.S. - Texas - Effects Screening Levels - Long Term
 U.S. - Texas - Effects Screening Levels - Short Term

Aluminum (7429-90-5)

U.S. - Massachusetts - Right To Know List
 U.S. - New Jersey - Right to Know Hazardous Substance List
 U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
 U.S. - Pennsylvania - RTK (Right to Know) List

Ammonium nitrate (6484-52-2)

U.S. - Massachusetts - Right To Know List
 U.S. - New Jersey - Right to Know Hazardous Substance List
 U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
 U.S. - Pennsylvania - RTK (Right to Know) List

Canadian Regulations 1966 Emulsion Blend

WHMIS Classification	Note: Explosives are not regulated under WHMIS. They are subject to the regulations of the Explosives Act of Canada.
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Fuels, diesel, no. 2 (68476-30-2)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Class B Division 3 - Combustible Liquid Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects
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Ammonium nitrate (6484-52-2)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Class C - Oxidizing Material Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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Aluminum (7429-90-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Listed on the Canadian Ingredient Disclosure List

WHMIS Classification	Class B Division 6 - Reactive Flammable Material
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Class B Division 4 - Flammable Solid

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 03/16/2016

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Party Responsible for the Preparation of This Document

Independent Explosives, Inc

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