

Safety Data Sheet

SECTION 1 – IDENTIFICATION

Name, Address, and Telephone of the Responsible Party

Dyno Nobel Inc.

6440 S. Millrock Drive, Suite 150

Salt Lake City, Utah 84121

Phone: 801-364-4800 Fax 801-321-6703

E-Mail: dнна.hse@am.dynonobel.com

www.dynonobel.com

SDS #: 1019

Date: 07/20/2020

Supersedes: 03/18/2015

Product Identifier

Product Form: Mixture

Product Name: Dynamite

Trade Name(s):

D-GEL™ 1000

DYNOSPLIT® D

DYNOSPLIT®: D-1

DYNAMAX PRO™

IP: 724

Oil Well Explosive 80%

RED HB

STONECUTTER™

UNIGEL®

UNIMAX®

VIBROGEL®: 1, 3

Z POWDER™

Other Means of Identification

Product Class: Dynamites and Blasting Gelatins

Intended Use of the Product

Industrial blasting applications

Emergency Telephone Number

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. 1.1

H201

Acute Tox. 3 (Oral)

H301

Acute Tox. 2 (Dermal)

H310

Acute Tox. 2 (Inhalation:dust,mist)

H330

Eye Irrit. 2A

H319

STOT RE 2

H373

Aquatic Acute 2

H401

Aquatic Chronic 2

H411

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US)

: Danger

Hazard Statements (GHS-US)

: H201 - Explosive; mass explosion hazard.

H301 - Toxic if swallowed.

H319 - Causes serious eye irritation.

H373 - May cause damage to organs through prolonged or repeated exposure.

H401 - Toxic to aquatic life.

Safety Data Sheet

Precautionary Statements (GHS-US)

H411 - Toxic to aquatic life with long lasting effects.

: P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking.

P241 - Use explosion-proof electrical, lighting, ventilating equipment.

P250 - Do not subject to friction, grinding, shock.

P260 - Do not breathe dust, mist, vapors.

P262 - Do not get in eyes, on skin, or on clothing.

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

P270 - Do not eat, drink or smoke when using this product.

P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

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

P284 - In case of inadequate ventilation wear respiratory protection.

P301+P310 - If swallowed: Immediately call a doctor/POISON CENTER.

P304+P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

P321 - Specific treatment (see Section 4).

P330 - Rinse mouth.

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

P361 - Take off immediately all contaminated clothing.

P363 - Wash contaminated clothing before reuse.

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.

P391 - Collect spillage.

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.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P405 - Store locked up.

P501 - Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations.

Other Hazards

Hazards Not Otherwise Classified (HNOC): Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. Ingestion may cause methemoglobinemia. Initial manifestation of methemoglobinemia is cyanosis, characterized by navy lips, tongue and mucous membranes, with skin color being slate grey. Further manifestation is characterized by headache, weakness, dyspnea, dizziness, stupor, respiratory distress and death due to anoxia. If ingested, nitrates may be reduced to nitrites by bacteria in the digestive tract. Signs and symptoms of nitrite poisoning include methemoglobinemia, nausea, dizziness, increased heart rate, hypotension, fainting and, possibly shock.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Name	Product identifier	% (w/w)	Ingredient Classification (GHS-US)
Ammonium nitrate	(CAS No) 6484-52-2	0 - 75	Ox. Sol. 3, H272 Eye Irrit. 2A, H319
Ethylene glycol, dinitrate	(CAS No) 628-96-6	5 - 45	Unst. Expl, H200 Acute Tox. 4 (Oral), H302

Safety Data Sheet

			Acute Tox. 3 (Dermal), H311 Acute Tox. 2 (Inhalation), H330 STOT RE 2, H373
Sodium nitrate	(CAS No) 7631-99-4	2 - 40	Ox. Sol. 3, H272 Eye Irrit. 2A, H319
Nitroglycerin	(CAS No) 55-63-0	3 - 30	Unst. Expl, H200 Acute Tox. 3 (Oral), H301 Acute Tox. 2 (Dermal), H310 Acute Tox. 2 (Inhalation:dust,mist), H330 STOT RE 2, H373 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
Nitrocellulose	(CAS No) 9004-70-0	0.1 - 3	Expl. 1.1, H201 Flam. Sol. 1, H228
Sulfur	(CAS No) 7704-34-9	0 - 2	Comb. Dust Skin Irrit. 2, H315 Aquatic Acute 3, H402
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 de minimus concentrations (less than 0.1% for carcinogens, less than 1.0% for other hazardous materials). Full text of H-phrases: see section 16			

SECTION 4 - FIRST AID MEASURES

Description of First Aid Measures

This is a packaged product that will not result in exposure to the contents under normal conditions of use. In the event of exposure, administer first aid appropriate for symptoms present.

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Avoid all contact with skin, eyes, or clothing.

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

Skin Contact: Remove contaminated clothing. Wash with soap and water.

Eye Contact: Rinse cautiously with water for several minutes. Obtain medical attention if irritation develops or persists.

Ingestion: Rinse mouth. Do not induce vomiting. Seek medical attention.

Most Important Symptoms and Effects Both Acute and Delayed

General: Harmful if swallowed. Toxic if swallowed. May cause serious eye irritation. May cause damage to organs through prolonged or repeated exposure.

Inhalation: Remove to fresh air and obtain medical attention if irritation develops or persists.

Skin Contact: Skin contact may result in headache, nausea, intestinal upset and blood vessel dilation. If exposed and feeling unwell or concerned, seek medical advice and attention.

Eye Contact: Causes serious eye irritation, redness and tearing.

Ingestion: May result in headache, nausea, intestinal upset and blood vessel dilation. Toxic if swallowed. Seek medical attention.

Chronic Symptoms: None expected under normal conditions of use.

Chronic Symptoms: May cause damage to organs through prolonged or repeated exposure.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed and feeling unwell or concerned, get medical advice and attention.

SECTION 5 - FIRE-FIGHTING MEASURES

Extinguishing Media

Safety Data Sheet

Suitable Extinguishing Media: DO NOT FIGHT FIRES INVOLVING EXPLOSIVE MATERIALS. Evacuate all personnel to a predetermined safe location, no less than 2,500 feet in all directions.

Unsuitable Extinguishing Media: DO NOT FIGHT FIRES INVOLVING EXPLOSIVE MATERIALS.

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: This product is an explosive with mass detonation hazard. Heating may cause an explosion.

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 FIGHT FIRES INVOLVING EXPLOSIVE MATERIALS. Evacuate all personnel to a predetermined safe location, no less than 2,500 feet in all directions.

Protection During Firefighting: DO NOT FIGHT FIRES INVOLVING EXPLOSIVE MATERIALS.

Hazardous Combustion Products: Carbon Monoxide (CO), Hydrogen Sulfide (H₂S), Nitrous Oxides (NO_X), and Sulfur Oxides (SO_X), Ammonia

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. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Eliminate every possible source of ignition.

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: Eliminate ignition sources. Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters. Contact competent authorities after a spill.

Methods and Material for Containment and Cleaning Up

Methods for Cleaning Up: Protect from all ignition sources. In case of fire evacuate area not less than 2,500 feet in all directions. Notify authorities in accordance with emergency response procedures. Only personnel trained in emergency response should respond. If no fire danger is present, and product is undamaged and/or uncontaminated, repackage product in original packaging or other clean DOT approved container. Ensure that a complete account of product has been made and is verified. Follow applicable Federal, State, and local spill reporting requirements. Contact of this product with water may result in a reportable release.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection Concerning disposal elimination after cleaning, see section 13.

SECTION 7 - HANDLING AND STORAGE

Precautions for Safe Handling

This is a packaged product that will not result in exposure to the contents under normal conditions of use.

Additional Hazards When Processed: This product is an explosive and should only be used under the supervision of trained and licensed personnel.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Store in cool, dry, well-ventilated location. Keep away from heat, flame, ignition sources, and strong shock. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical, lighting, ventilating equipment. Protect container from physical shock. Store as defined in the Explosives Act of Canada

Safety Data Sheet

and the provisions of the Bureau of Alcohol, Tobacco and Firearms regulations contained in 27 CFR Part 555.

Storage Conditions: Store under moderate temperatures recommended by a technical services representative. Store under dry conditions in a well ventilated magazine that has been approved for either detonator storage or explosive storage. Do NOT store explosives in a detonator magazine or detonators in an explosive magazine. Keep away from heat, spark and flames. Keep containers closed. Explosives should be kept well away from initiating explosives; protected from physical damage; separated from oxidizing materials, combustibles, and sources of heat. Isolate from incompatibles.

Incompatible Materials: Corrosives (mineral acids, bases, strong acids).

Specific End Use(s) For industrial blasting applications.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Ethylene glycol, dinitrate (628-96-6)

Mexico	OEL TWA (mg/m ³)	0.3 mg/m ³
Mexico	OEL TWA (ppm)	0.05 ppm
Mexico	OEL STEL (mg/m ³)	0.6 mg/m ³
Mexico	OEL STEL (ppm)	0.1 ppm
USA ACGIH	ACGIH TWA (ppm)	0.05 ppm
USA OSHA	OSHA PEL (Ceiling) (mg/m ³)	1 mg/m ³
USA OSHA	OSHA PEL (Ceiling) (ppm)	0.2 ppm
USA NIOSH	NIOSH REL (STEL) (mg/m ³)	0.1 mg/m ³
USA IDLH	US IDLH (mg/m ³)	75 mg/m ³
Alberta	OEL TWA (mg/m ³)	0.3 mg/m ³
Alberta	OEL TWA (ppm)	0.05 ppm
British Columbia	OEL TWA (ppm)	0.05 ppm
Manitoba	OEL TWA (ppm)	0.05 ppm
New Brunswick	OEL TWA (mg/m ³)	0.31 mg/m ³
New Brunswick	OEL TWA (ppm)	0.05 ppm
Newfoundland & Labrador	OEL TWA (ppm)	0.05 ppm
Nova Scotia	OEL TWA (ppm)	0.05 ppm
Nunavut	OEL STEL (mg/m ³)	0.31 mg/m ³
Nunavut	OEL STEL (ppm)	0.05 ppm
Nunavut	OEL TWA (mg/m ³)	1.2 mg/m ³
Nunavut	OEL TWA (ppm)	0.02 ppm
Northwest Territories	OEL STEL (mg/m ³)	0.31 mg/m ³
Northwest Territories	OEL STEL (ppm)	0.05 ppm
Northwest Territories	OEL TWA (mg/m ³)	1.2 mg/m ³
Northwest Territories	OEL TWA (ppm)	0.02 ppm
Ontario	OEL TWA (ppm)	0.05 ppm
Prince Edward Island	OEL TWA (ppm)	0.05 ppm
Québec	PLAFOND (mg/m ³)	1.2 mg/m ³
Québec	PLAFOND (ppm)	0.2 ppm
Saskatchewan	OEL STEL (ppm)	0.15 ppm
Saskatchewan	OEL TWA (ppm)	0.05 ppm

Nitroglycerin (55-63-0)

Mexico	OEL TWA (mg/m ³)	0.5 mg/m ³
Mexico	OEL TWA (ppm)	0.05 ppm
Mexico	OEL STEL (mg/m ³)	1 mg/m ³
Mexico	OEL STEL (ppm)	0.1 ppm

Safety Data Sheet

USA ACGIH	ACGIH TWA (ppm)	0.05 ppm
USA OSHA	OSHA PEL (Ceiling) (mg/m ³)	2 mg/m ³
USA OSHA	OSHA PEL (Ceiling) (ppm)	0.2 ppm
USA NIOSH	NIOSH REL (STEL) (mg/m ³)	0.1 mg/m ³
USA IDLH	US IDLH (mg/m ³)	75 mg/m ³
Alberta	OEL TWA (mg/m ³)	0.5 mg/m ³
Alberta	OEL TWA (ppm)	0.05 ppm
British Columbia	OEL TWA (ppm)	0.05 ppm
Manitoba	OEL TWA (ppm)	0.05 ppm
New Brunswick	OEL TWA (mg/m ³)	0.46 mg/m ³
New Brunswick	OEL TWA (ppm)	0.05 ppm
Newfoundland & Labrador	OEL TWA (ppm)	0.05 ppm
Nova Scotia	OEL TWA (ppm)	0.05 ppm
Nunavut	OEL STEL (mg/m ³)	0.46 mg/m ³
Nunavut	OEL STEL (ppm)	0.05 ppm
Nunavut	OEL TWA (mg/m ³)	1.9 mg/m ³
Nunavut	OEL TWA (ppm)	0.02 ppm
Northwest Territories	OEL STEL (mg/m ³)	0.46 mg/m ³
Northwest Territories	OEL STEL (ppm)	0.05 ppm
Northwest Territories	OEL TWA (mg/m ³)	1.9 mg/m ³
Northwest Territories	OEL TWA (ppm)	0.02 ppm
Ontario	OEL TWA (ppm)	0.05 ppm
Prince Edward Island	OEL TWA (ppm)	0.05 ppm
Québec	PLAFOND (mg/m ³)	1.86 mg/m ³
Québec	PLAFOND (ppm)	0.2 ppm
Saskatchewan	OEL STEL (ppm)	0.15 ppm
Saskatchewan	OEL TWA (ppm)	0.05 ppm
Yukon	OEL STEL (mg/m ³)	2 mg/m ³
Yukon	OEL STEL (ppm)	0.2 ppm
Yukon	OEL TWA (mg/m ³)	2 mg/m ³
Yukon	OEL TWA (ppm)	0.2 ppm

Sulfur (7704-34-9)

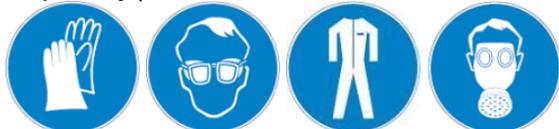
Alberta	OEL TWA (mg/m ³)	10 mg/m ³
---------	------------------------------	----------------------

Exposure Controls

General: Inhalation and skin contact should be avoided. Exposure may cause headaches, nausea, and blood vessel dilation. Protective clothing should be changed daily, more often if contaminated.

Appropriate Engineering Controls: Forced ventilation may be necessary where natural ventilation is limited. Magazines containing NG and/or EGDN based explosives must be ventilated before entry. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal Protective Equipment: Gloves. Safety glasses. Suitable work clothing. If insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing: Not specified.

Hand Protection: Wear chemically resistant protective (nitrile) gloves.

Eye Protection: Safety glasses are recommended.

Safety Data Sheet

Skin and Body Protection: Wear suitable work clothing and avoid contact with skin.

Respiratory Protection: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Environmental Exposure Controls: Do not allow the product to be released into the environment.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: Powdery to gelatinous solid, light tan to dark brown color
Odor	: Faint, waxy odor
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	: Not available
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Nitroglycerin: 145°C (293 °F)
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
Relative Density	: Not available
Density	: 0.8 - 1.48 g/cc
Specific Gravity	: Not available
Solubility	: Water: Ammonium and sodium nitrates are completely soluble; NG and EGDN are very slightly soluble
Partition coefficient: n-octanol/water	: Not available
Viscosity	: Not available
Explosive properties	: Explosive; mass explosion hazard
Explosion Data – Sensitivity to Mechanical Impact	: Sensitive to mechanical impact
Explosion Data – Sensitivity to Static Discharge	: Not sensitive to static discharge

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: Thermal decomposition generates flammable and toxic products.

Chemical Stability: Stable under normal conditions. 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: Keep away from heat, flame, ignition sources and strong shock.

Incompatible Materials: Corrosives (mineral acids, bases, strong acids).

Hazardous Decomposition Products: Carbon Monoxide (CO), Hydrogen Sulfide (H₂S), Nitrous Oxides (NO_x), and Sulfur Oxides (SO_x).

SECTION 11 - TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

SDS# 1019 Date:07/20/2020

DYNO[®]
Dyno Nobel

Page 7 of 13

Groundbreaking Performance[®]

Safety Data Sheet

Acute Toxicity: Toxic if swallowed. Skin contact and inhalation of vapors may result in headache, nausea, intestinal upset and blood vessel dilation. Extreme skin or inhalation exposure may be fatal.

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Not classified

Serious Eye Damage/Irritation: May cause serious eye irritation.

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not classified

Carcinogenicity: Not classified

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: Extreme inhalation exposure may be fatal.

Symptoms/Injuries After Skin Contact: Extreme skin exposure may be fatal.

Symptoms/Injuries After Eye Contact: Causes serious eye irritation.

Symptoms/Injuries After Ingestion: Toxic if swallowed. Ammonium Nitrate: Ingestion may cause methemoglobinemia. Initial manifestation of methemoglobinemia is cyanosis, characterized by navy lips, tongue and mucous membranes, with skin color being slate grey. Further manifestation is characterized by headache, weakness, dyspnea, dizziness, stupor, respiratory distress and death due to anoxia. If ingested, nitrates may be reduced to nitrites by bacteria in the digestive tract. Signs and symptoms of nitrite poisoning include methemoglobinemia, nausea, dizziness, increased heart rate, hypotension, fainting and possibly shock.

Chronic Symptoms: May cause damage to organs through prolonged or repeated exposure.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Ethylene glycol, dinitrate (628-96-6)	
LD50 Oral Rat	460 mg/kg
LD50 Dermal Rat	3800 mg/kg
LD50 Dermal Rabbit	400 mg/kg
Sodium nitrate (7631-99-4)	
LD50 Oral Rat	> 2000 mg/kg
Ammonium nitrate (6484-52-2)	
LD50 Oral Rat	2217 mg/kg
LC50 Inhalation Rat	> 88.8 mg/l/4h
Nitrocellulose (9004-70-0)	
LD50 Oral Rat	5000 mg/kg
Nitroglycerin (55-63-0)	
LD50 Oral Rat	105 mg/kg
LD50 Dermal Rabbit	> 280 mg/kg
ATE (dust, mist)	0.050 mg/l/4h
Sulfur (7704-34-9)	
LD50 Oral Rat	> 3000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
LC50 Inhalation Rat	> 9.23 mg/l/4h

SECTION 12: ECOLOGICAL INFORMATION

Safety Data Sheet

Toxicity

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

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

Sodium nitrate (7631-99-4)

LC50 Fish 1	2000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
LC 50 Fish 2	994.4 - 1107 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

Nitroglycerin (55-63-0)

LC50 Fish 1	0.87 - 3.25 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
EC50 Daphnia 1	46 - 55 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	0.87 - 2.21 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 2	38 - 55 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

Sulfur (7704-34-9)

LC50 Fish 1	866 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
LC 50 Fish 2	14 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

Persistence and Degradability

Sodium nitrate (7631-99-4)

Persistence and Degradability Readily biodegradable in water.

Bioaccumulative Potential

Ethylene glycol, dinitrate (628-96-6)

Log Pow 1.16 (at 20 °C)

Sodium nitrate (7631-99-4)

Log Pow -3.8 (at 25 °C)
Bioaccumulative Potential Not expected to bioaccumulate.

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 Disposal Recommendations: Disposal must comply with Federal, State and local regulations. If product becomes a waste, it is potentially regulated as a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR, part 261. Review disposal requirements with a person knowledgeable with applicable environmental law (RCRA) before disposing of any explosive material.

Additional Information: None specified

SECTION 14 - TRANSPORT INFORMATION

14.1 In Accordance with DOT

Proper Shipping Name : EXPLOSIVE, BLASTING, TYPE A
Hazard Class : 1.1D
Identification Number : UN0081
Label Codes : 1.1D
Packing Group : II
Marine Pollutant : Marine pollutant
ERG Number : 112



Safety Data Sheet

14.2 In Accordance with IMDG

Proper Shipping Name : EXPLOSIVE, BLASTING, TYPE A
Hazard Class : 1.1D
Identification Number : UN0081
Label Codes : 1.1D
EmS-No. (Fire) : F-B
EmS-No. (Spillage) : S-Y



Marine pollutant : Marine pollutant

14.3 In Accordance with IATA

Proper Shipping Name : EXPLOSIVE, BLASTING, TYPE A
Identification Number : UN0081
Hazard Class : 1
Label Codes : 1.1D



ERG Code (IATA) : 1L

14.4 In Accordance with TDG

Proper Shipping Name : EXPLOSIVE, BLASTING, TYPE A
Packing Group : II
Hazard Class : 1.1D
Identification Number : UN0081
Label Codes : 1.1D



Marine Pollutant (TDG) : Marine pollutant

SECTION 15 - REGULATORY INFORMATION

US Federal Regulations

Dynamite

SARA Section 311/312 Hazard Classes

Fire hazard
 Immediate (acute) health hazard
 Reactive hazard
 Sudden release of pressure hazard

Ethylene glycol, dinitrate (628-96-6)

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

Sodium nitrate (7631-99-4)

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

Nitrocellulose (9004-70-0)

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

Nitroglycerin (55-63-0)

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

Listed on United States SARA Section 313

SARA Section 313 - Emission Reporting

1.0 %

Sulfur (7704-34-9)

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

US State Regulations

Ethylene glycol, dinitrate (628-96-6)

U.S. - Massachusetts - Right To Know List

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) List

Safety Data Sheet

Sodium nitrate (7631-99-4)	
U.S. - Massachusetts - Right To Know 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	
Nitrocellulose (9004-70-0)	
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List	
Nitroglycerin (55-63-0)	
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	
Sulfur (7704-34-9)	
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List	
Canadian Regulations	
1019 Dynamite	
WHMIS Classification	Note: Explosives are not regulated under WHMIS. They are subject to the regulations of the Explosives Act of Canada.
Ethylene glycol, dinitrate (628-96-6)	
Listed on the Canadian DSL (Domestic Substances List) Listed on the Canadian IDL (Ingredient Disclosure List)	
WHMIS Classification	Class D Division 1 Subdivision A - Very toxic material causing immediate and serious toxic effects Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects
Sodium nitrate (7631-99-4)	
Listed on the Canadian DSL (Domestic Substances List) Listed on the Canadian IDL (Ingredient Disclosure List)	
WHMIS Classification	Class C - Oxidizing Material Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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
Nitrocellulose (9004-70-0)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 4 - Flammable Solid Class F - Dangerously Reactive Material
Nitroglycerin (55-63-0)	
Listed on the Canadian DSL (Domestic Substances List)	

Safety Data Sheet

Sulfur (7704-34-9)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 4 - Flammable Solid Class D Division 2 Subdivision B - Toxic material causing other toxic effects
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.	

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

Revision date	: 007/20/2020
Other Information	: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Acute Tox. 2 (Dermal)	Acute toxicity (dermal) Category 2
Acute Tox. 2 (Inhalation)	Acute toxicity (inhalation) Category 2
Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Comb. Dust	Combustible Dust
Expl. 1.1	Explosive Category 1.1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Sol. 1	Flammable solids Category 1
Ox. Sol. 3	Oxidizing solids Category 3
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
Unst. Expl	Unstable explosives
H200	Unstable explosives
H201	Explosive; mass explosion hazard
H232	May form combustible dust concentrations in air
H301	Toxic if swallowed
H302	Harmful if swallowed
H311	Toxic in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H373	May cause damage to organs through prolonged or repeated exposure
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects

Safety Data Sheet

Party Responsible for the Preparation of This Document

Dyno Nobel Inc.
6440 S. Millrock Drive, Suite 150
Salt Lake City, Utah 84121
Phone: 801-364-4800

Disclaimer

Dyno Nobel Inc. and its subsidiaries disclaim any warranties with respect to this product, the safety or suitability thereof, the information contained herein, or the results to be obtained, whether express or implied, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND/OR OTHER WARRANTY. The information contained herein is provided for reference purposes only and is intended only for persons having relevant technical skills. Because conditions and manner of use are outside of our control, the user is responsible for determining the conditions of safe use of the product. Buyers and users assume all risk, responsibility and liability whatsoever from any and all injuries (including death), losses, or damages to persons or property arising from the use of this product or information. Under no circumstances shall either Dyno Nobel Inc. or any of its subsidiaries be liable for special, consequential or incidental damages or for anticipated loss of profits.