

Material Safety Data Sheet

Dyno Nobel Inc.

2650 Decker Lake Boulevard, Suite 300
Salt Lake City, Utah 84119
Phone: 801-364-4800 Fax: 801-321-6703
E-Mail: dna.hse@am.dynonobel.com

FOR 24 HOUR EMERGENCY, CALL **CHEMTREC (USA) 800-424-9300**
CANUTEC (CANADA) 613-996-6666

MSDS # 1019

Date 03/27/07

Supersedes
MSDS # 1019 01/24/05

SECTION I - PRODUCT IDENTIFICATION

Trade Name(s):	D-GEL™ 1000	Oil Well Explosive 80%
	DYNOSPLIT® : D1, D 3/4, D 7/8	Oil Well Explosive 100%
	EXTRA GELATIN: 40%, 75%	STONECUTTER™
	GELAPRIME® F	REDH® A
	UNIGEL®	RED H® B
	UNIMAX®	POWERGEL D
	VIBROGEL® : 1,3	60% Hi-Pressure Gelatin
	Z POWDER™	IRESPLIT® D
	DYNOMAX PRO™	IP: 724, 738

Product Class: Dynamites and Blasting Gelatins

Product Appearance & Odor: Powdery to gelatinous solid, light tan to dark brown color. Faint, waxy odor.

DOT Hazard Shipping Description: Explosive, blasting, type A 1.1D UN0081 II

NFPA Hazard Classification: Not Available (See Section IV - Special Fire Fighting Procedures)

SECTION II - HAZARDOUS INGREDIENTS

Ingredients:	CAS#	% (Range)	Occupational Exposure Limits	
			ACGIH TLV-TWA	OSHA PEL-TWA
Nitroglycerin (NG)	55-63-0	1-20	0.05 ppm	0.05 ppm
Ethylene Glycol Dinitrate (EGDN)	628-96-6	8-76	0.05 ppm	0.05 ppm
Nitrocellulose	9004-70-0	0-6	None	None
Ammonium Nitrate	6484-52-2	0-75	None	None
Sodium Nitrate	7631-99-4	0-50	None	None
Sulfur ¹	7704-34-9	0-4	None	None

¹ This ingredient is not found in most of the products listed above.

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).

SECTION III - PHYSICAL DATA

Boiling Point: Not Applicable

Vapor Density: Not Applicable

Percent Volatile by Volume: Not Applicable

Evaporation Rate (Butyl Acetate = 1): Not Applicable

Vapor Pressure: Not Applicable

Density: 0.8-1.48 g/cc

Solubility in Water: Ammonium and sodium nitrates are completely soluble. NG and EGDN are very slightly soluble.

Material Safety Data Sheet

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: Not Applicable

Flammable Limits: Not Applicable

Extinguishing Media: (See Special Fire Fighting Procedures section.)

Special Fire Fighting Procedures: 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.

Unusual Fire and Explosion Hazards: Can explode or detonate under fire conditions. Burning material may produce toxic vapors.

SECTION V - HEALTH HAZARD DATA

Effects of Overexposure

Eyes: May cause irritation, redness and tearing.

Skin: Contact may result in headache, nausea and blood vessel dilation.

Ingestion: May result in headache, nausea, intestinal upset and blood vessel dilation.

Inhalation: May result in headache, nausea and blood vessel dilation.

Systemic or Other Effects: None known.

Emergency and First Aid Procedures

Eyes: Irrigate with running water for at least fifteen minutes. If irritation persists, seek medical attention.

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

Ingestion: Seek medical attention.

Inhalation: Remove to fresh air. If irritation persists, seek medical attention.

Special Considerations: None.

SECTION VI - REACTIVITY DATA

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.

Conditions to Avoid: Keep away from heat, flame, ignition sources and strong shock.

Materials to Avoid (Incompatibility): Corrosives (mineral acids, bases, strong acids).

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

Hazardous Polymerization: Will not occur.

SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be taken in Case Material is Released or Spilled: 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.

Waste Disposal Method: 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.

Material Safety Data Sheet

SECTION VIII - SPECIAL PROTECTION INFORMATION

Ventilation: Forced ventilation may be necessary where natural ventilation is limited. Magazines containing NG and/or EGDN based explosives must be ventilated before entry.

Respiratory Protection: None normally required.

Protective Clothing: Chemical resistant (nitrile) gloves are suggested.

Eye Protection: Safety glasses are recommended.

Other Precautions Required: Inhalation and skin contact should be minimized to avoid headaches, nausea, and blood vessel dilation. Protective clothing should be changed daily, more often if contaminated.

SECTION IX - SPECIAL PRECAUTIONS

Precautions to be taken in handling and storage: Store in cool, dry, well-ventilated location. Store in compliance with Federal, State, and local regulations. Keep away from heat, flame, ignition sources, and strong shock.

Precautions to be taken during use: Avoid breathing the fumes or gases from detonation of explosives. Use accepted safe industry practices when using explosive materials. Unintended detonation of explosives or explosive devices can cause serious injury or death.

Other Precautions: It is recommended that users of explosive materials be familiar with the Institute of Makers of Explosives Safety Library Publications.

SECTION X - SPECIAL INFORMATION

<u>Chemical Name</u>	<u>CAS Number</u>	<u>% By Weight</u>
Nitroglycerin	55-63-0	1-20

The reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372 may become applicable if the physical state of this product is changed to an aqueous solution. If an aqueous solution of this product is manufactured, processed, or otherwise used, the nitrate compounds category and ammonia listing of the previously referenced regulation should be reviewed.

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.