

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

<b>Supplier Name:</b>	NITRO SIBIR AUSTRALIA
<b>Address:</b>	Unit 218, 396 Scarborough Beach Road Osborne Park, WESTERN AUSTRALIA 6017
<b>Telephone:</b>	+61 417772219
<b>Fax:</b>	Not applicable
<b>Emergency:</b>	1800 884 289
<b>Synonyms:</b>	MAXIDRIVE®, MAXIDRIVE PLUS®
<b>Use:</b>	Blasting agent used in the mining industry
<b>SDS Date:</b>	March, 2015
<b>TDS:</b>	Nitro Sibir TDS Ref: PE01 MAXIDRIVE® and MAXIDRIVE PLUS®

### 2. Hazards Identification

**Hazard Classification:** NOT CLASSIFIED AS HAZARDOUS ACCORDING TO THE CRITERIA OF ASCC.

CLASSIFIED AS DANGEROUS GOODS ACCORDING TO THE CRITERIA OF THE AUSTRALIAN CODE FOR THE TRANSPORT OF EXPLOSIVES BY ROAD AND RAIL.

**RISK PHRASES:** R3: Extreme risk of explosion by shock, friction, fire or other sources of ignition.

**SAFETY PHRASES:** S16: Keep away from sources of ignition - No smoking.

S34: Avoid shock and friction.

S35: This material and its container must be disposed of in a safe way.

### 3. Composition / Information on Ingredients

Ingredient	CAS	Proportion
Ammonium Nitrate (H <sub>3</sub> -N.H-NO <sub>3</sub> )	6484-52-2	> 60%
Sodium Nitrate (Na-N-O <sub>3</sub> )	7631-99-4	10 - 30%
Aluminium	7429-90-5	0 - <5%
Plastic	-	< 10%
Distillates (petroleum), chemically neutralized light naphthenic [Unrefined or mildly refined base oil]	62-56-6	< 0.5%
Materials determined not to be hazardous	-	to 100%

### 4. First Aid Measures

<b>Eye:</b>	If eye contact occurs, wash with copious amounts of water holding eyelids open. Take care not to rinse contaminated water into the non-affected eye. In all cases of eye contamination, it is sensible to seek medical advice and/or attention.
<b>Inhalation:</b>	If inhaled, remove from contaminated area. If symptoms develop, seek medical attention.
<b>Ingestion:</b>	Immediately rinse mouth with water. If swallowed DO NOT induce vomiting. Seek immediate medical assistance.
<b>Skin:</b>	If contact with skin occurs, immediately remove any contaminated clothing and wash area thoroughly with soap and running water. Seek immediate medical assistance if blistering occurs or redness persists.
<b>Advice to Doctor:</b>	Treat symptomatically.
<b>Other Information:</b>	If decomposition products are inhaled, remove to air. Allow patient to assume most comfortable position. Keep at rest until fully recovered. If not breathing, administer artificial respiration. If breathing is difficult, give oxygen. Seek medical assistance.

### 5. FIRE FIGHTING MEASURES

<b>Suitable Extinguishing Media:</b>	If the product ignites then mass cooling by heavy dousing with water should effectively extinguish small fires.
<b>Hazards from Combustion Products:</b>	Under fire conditions, this product may emit toxic and/or irritating fumes including carbon monoxide and carbon dioxide.
<b>Specific Hazards:</b>	Dangerous when exposed to heat or flames. Can support combustion of other materials involved in fire and is capable of undergoing detonation if heated to high temperatures especially under confinement (including being piled on itself in a burning fire). When heated to decomposition, highly toxic fumes may be emitted.  DO NOT FIGHT LARGE FIRES. If a fire becomes established, immediately isolate area and evacuate personnel to at least 1600m – do not return until smoke and fumes have dissipated.
<b>Precautions for Fire Fighters and Special Protective Equipment:</b>	Explosive material. DO NOT FIGHT EXPLOSIVE FIRES. Try to keep fire from reaching explosives. Isolate area and evacuate personnel to a safe distance.
<b>Other Information:</b>	Explosives should not be abandoned at any location for any reason. Do not handle during electrical storms.
<b>HAZCHEM CODE:</b>	E

### 6. ACCIDENTAL RELEASE MEASURES

<b>Emergency Procedures:</b>	Shut off all possible ignition sources and isolate the area. Clear area of all unprotected personnel. Avoid skin contact and remove soiled clothing.
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**Spillage:** Small spills should be scooped up and placed in clean, approved containers that are then labelled and sealed. Where possible, all residues should be scraped up for disposal and an inert absorbent material such as sand or vermiculite spread over the area.

For large spills, collect as much of the material as possible and place in clean, approved containers that are then labelled and sealed.

Surplus or defective explosives must not be placed in any waterway, thrown away, discarded or placed with rubbish.

## 7. HANDLING AND STORAGE

**Handling:** Use the smallest possible amounts in designated areas with adequate ventilation. Handle with great care. Avoid contact with oxidising materials. Have emergency equipment for fires, spills and leaks readily available. Keep containers closed when not in use. Wear appropriate protective equipment to prevent inhalation, and skin and eye contact. All who come into contact with this material must maintain high standards of personal hygiene, i.e. washing hands prior to eating, drinking, smoking or using toilet facilities.

**Storage:** Store in a cool, dry, well-ventilated magazine licenced for Class 1.1D explosives. Keep storage area free of sources of shock, friction, heat, ignition and combustible materials. Keep containers closed when not in use and securely sealed and protected against physical damage. Inspect regularly for damage and spills. Always keep in containers made of the same material as the supply container. Have appropriate fire extinguishers available in and near the storage area. Avoid any contamination of this material as it is very reactive and any contamination is potentially hazardous. Reference should be made to AS2187.1-1998 Explosives – Storage, transport and use – Storage, and to all state and federal regulations.

**Other Information:** Use of this product by persons lacking adequate training, experience and supervision may result in injury or death. Obey all Commonwealth, State and local laws and regulations.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**National Exposure Limits:** No exposure standards have been established for this material, however the TWA SafeWork exposure standard for Dust, Not Otherwise Specified is as below:

Substance	STEL		TWA		Notice
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
Dust (NOS)	-	-	-	10	-

**TWA** (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.

**STEL** (Short Time Exposure Limit): The average airborne concentration over a 15-minute period that should not be exceeded at any time during a normal eight-hour working day.

- Engineering Controls:** Use in a well ventilated area. Ensure sufficient ventilation to keep airborne concentrations below exposure limits. All personnel should be removed to a safe location and protected from air blast and fly rock during blasting operations.
- Eye Protection:** Use safety glasses when handling and using this product. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection should conform to Australian / New Zealand Standard AS/NZS 1337 – Eye Protectors for Industrial Applications.
- Hand Protection:** Wear gloves of impervious material (PVC or neoprene). Final choice of gloves will vary according to individual circumstances. Reference should be made to Australian / New Zealand Standard AS/NZS 2616.1: – Occupational protective gloves – Selection, use and maintenance.
- Body Protection:** Wear appropriate clothing such as a chemical resistant apron where clothing is likely to be contaminated. It is recommended that a local supplier of personal protective clothing is consulted regarding the choice of material.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance:** Continuous string of cartridged, plastic wrapped material with 11g/m detonating cord running through the centre of the entire length. When the package is perforated, the exposed product appears as a silver foamed gel.
- Odour:** Not available
- Flammability:** Explosive material – avoid all ignition sources and sources of heat.
- Flash Point:** Not applicable
- Boiling Point:** Not applicable
- Melting Point:** Not applicable
- Evaporation Rate:** Not applicable
- pH:** 4.5 – 6.0
- Vapour Density:** Not applicable
- Specific Gravity:** 1.05 – 1.15 g/cm<sup>3</sup>
- Solubility (water):** Insoluble

## 10. STABILITY AND REACTIVITY

- Conditions to Avoid:** Avoid exposure to heat, sources of ignition, open flame, shock and friction.
- Chemical Incompatibility:** Incompatible with other chemicals. Avoid contact with other explosives, pyrotechnics, solvents, acids, alkalis, reducing agents, amines, phosphorous, organic materials / compounds, finely divided combustible materials, finely divided metals and metal oxides.
- Hazardous Decomposition:** Thermal decomposition may result in the release of irritating and/or toxic fumes including ammonia and oxides of nitrogen and carbon.

### 11. TOXICOLOGICAL INFORMATION

<b>Toxicology Information:</b>	No data available for the actual product. The construction of this product should prevent any chemical contamination. No adverse health effects are expected if the product is handled in accordance with this Safety Data Sheet and the product label.
<b>Inhalation:</b>	Inhalation of product vapours may cause irritation of the nose, throat and respiratory system.
<b>Ingestion:</b>	Ingestion of product may irritate the gastric tract causing nausea and vomiting.
<b>Skin:</b>	Exposure may cause redness, itching and irritation.
<b>Eye:</b>	Exposure may cause irritation, tearing, stinging, blurred vision and redness.
<b>Long Term Effects:</b>	Prolonged or repeated skin contact may cause defatting leading to dermatitis.
<b>Toxicological Data:</b>	No LD50 data available for this product.

### 12. ECOLOGICAL INFORMATION

<b>Exotoxicity:</b>	No data available for this product.
<b>Aquatic Toxicity:</b>	No data available for this product.
<b>Persistence / Degradability:</b>	No data available for this product.
<b>Mobility:</b>	No data available for this product.
<b>Environmental Protection:</b>	Prevent this material from entering waterways and drains.

### 13. DISPOSAL CONSIDERATIONS

<b>Waste Disposal:</b>	<p>Destruction of explosives must only be carried out by suitably qualified and licensed personnel. If necessary, the relevant Statutory Authorities must be notified. In all circumstances, detonation is the preferred method of disposal.</p> <p>The explosives to be destroyed must be placed in direct contact with fresh priming charge in a hole and then adequately stemmed. DO NOT insert detonators into defective explosives.</p> <p>Personnel must be evacuated to a safe distance in accordance with relevant local regulations prior to initiation of the charge.</p> <p>NOTE: Detonations in loose or stony ground may be expected to cause fly rock.</p> <p>If assistance is required regarding the disposal of waste product, please contact a Nitro Sibir Australia representative.</p>
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### 14. TRANSPORT CONSIDERATIONS



Classified as a Class 1 (Explosives) Dangerous Goods according to the Australian Code for the Transport of Explosives by Road and Rail.

**UN Number:** UN 0241

**Proper Shipping Name:** EXPLOSIVE, BLASTING, TYPE E

**Dangerous Goods Class:** 1.1D

**HAZCHEM Code:** E

**Packaging Method:** E8

**Transport Information:** Dangerous Goods of Class 1 (Explosives) are incompatible in a placard load with the following:

- Class 2.1 – Flammable Gas
- Class 2.2 – Non-flammable Non-toxic Gas
- Class 2.3 – Toxic Gas
- Class 3 – Flammable Liquid
- Class 4.1 – Flammable Solid
- Class 4.2 – Spontaneously Combustible Substance
- Class 4.3 – Dangerous When Wet Substance
- Class 5.1 – Oxidising Agent
- Class 5.2 – Organic Peroxide
- Class 6 – Toxic and Infectious Substance
- Class 7 – Radioactive Substance
- Class 8 – Corrosive
- Class 9 – Miscellaneous Dangerous Goods
- Fire Risk Substances

### 15. REGULATORY INFORMATION

**Classification:** Not Classified as Hazardous according to the criteria of National Occupational Health & Safety Commission (NOHSC) Australia.

**Hazard Category:** Explosive.

**Poisons Schedule:** A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

**Inventory Listing(s):** AICS (Australian Inventory of Chemical Substances): All components are listed on AICS.

### 16. OTHER INFORMATION

*The information contained in this SDS is believed to be accurate and has been obtained from sources considered reliable. Users of this information should make their own investigations to determine the suitability of the information for their particular use or situation. NITRO SIBIR AUSTRALIA does not in any way warrant or imply the applicability, viability or use of this information to any person, for use in any situation.*

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