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MATERIAL SAFETY DATA SHEET

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1.0 PRODUCT AND COMPANY IDENTIFICATION

Product name	Detonating Cord (5g) Detonating Cord (11g) Detonating Cord (40g)
General name	Detonating Cord
General description	Detonating Cord
Product use	The basic function of a detonating cord is to link charges together so that they may be initiated simultaneously. Other applications include pre-splitting, smooth blasting, seismic prospecting and general demolition work. Detonating cords consist essentially of a core PETN enclosed in plastic tapes, natural and synthetic fibres and an outer sleeve of plastic.
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2.0 PRODUCT COMPOSITION / INFORMATION ON INGREDIENTS

Ingrd Name: PENTAERYTHRITOL TETRANITRATE (PETN)
CAS: 78-11-5
RTECS #: RZ2620000
Other REC Limits: N/K
OSHA PEL: N/K
ACGIH TLV: N/K

3.0 HAZARDS IDENTIFICATION

LD50 LC50 Mixture: N/K
Reports of Carcinogenicity: NTP: NO IARC: NO OSHA: NO
Health Hazards Acute and Chronic: SEE SIGNS AND SYMPTOMS OF OVEREXPOSURE.
Explanation of Carcinogenicity: NONE
Effects of Overexposure: EYES/SKIN/INGESTION/INHALATION: NOT A LIKELY ROUTE OF EXPOSURE.
Medical Cond Aggravated by Exposure: N/K

4.0 FIRST AID MEASURES

First Aid: EYES/SKIN/INGESTION: N/A.
INHALATION: IF DETONATION FUMES ARE INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION, PREFERABLY MOUTH TO MOUTH. IF BREATHING IS DIFFICULT, GIVE OXYGEN. CALL A PHYSICIAN.

5.0 FIRE FIGHTING MEASURES

Lower Limits: N/K
Upper Limits: N/K
Extinguishing Media: NONE
Fire Fighting Procedures: DO NOT FIGHT FIRE. ISOLATE AREA. EVACUATE PERSONNEL TO A SAFE PLACE.

Unusual Fire/Explosion Hazard:
MAY DETONATE IF OTHER OUSIDE INFLUENCES ARE PRESENT. HAZARDOUS GASES PRODUCED IN A FIRE ARE NITROGEN OXIDES.

6.0 ACCIDENTAL RELEASE MEASURES

Spill Release Procedures: REVIEW FIRE AND EXPLOSION HAZARDS AND SAFETY PRECAUTIONS BEFORE PROCEEDING WITH CLEAN UP. USE APPROPRIATE PERSONAL PROTECTION EQUIPMENT DURING CLEAN UP.
Neutralizing Agent: N/K

7.0 STORAGE AND HANDLING

Handling and Storage Precautions: TRANSPORTATION AND STORAGE MUST BE IN ACCORDANCE WITH FEDERAL AND STATE REGULATIONS.
Other Precautions: REFER TO MANUFACTURER'S INSTRUCTIONS AND WARNINGS SUPPLIED WITH PRODUCT. AVOID BREATHING FUMES OF DETONATION.

8.0 EXPOSURE CONTROLS & PERSONAL PROTECTION

Respiratory Protection: NONE
Ventilation: CONSULT LOCAL SAFETY/HEALTH AUTHORITIES IF ADDITIONAL GUIDANCE IS NEEDED.
Protective Gloves: NONE
Eye Protection: SAFETY GLASSES
Other Protective Equipment: NONE
Work Hygienic Practices: N/K

Supplemental Safety and Health
WASTE DISP METH: CONSULT AN EXPLOSIVES MANUFACTURER FOR RECOMMENDED METHODS FOR DESTROYING EXPLOSIVE MATERIALS.

9.0 PHYSICAL AND CHEMICAL PROPERTIES

Decomp Temp: Decomp Text: N/K
Appearance and Odor: HIGH EXPLO CORE (15-400 GR/FT OF ANY ONE LISTED) TEXTILE &/OR PLASTIC WRAPPED.

10.0 STABILITY AND REACTIVITY DATA

Stability Indicator/Materials to Avoid: YES
 INCOMPATIBLE WITH ACIDS, ALKALIES.
Stability Condition to Avoid: DETONATING CORDS BECOME LESS STABLE WITH HEAT.UNSTABLE WITH SHOCK.AVOID HEAT.
Hazardous Decomposition Products: HAZARDOUS GASES PRODUCES ARE NITROGEN OXIDES.
Conditions to Avoid Polymerization: HEAT,SHOCK.

11.0 TOXICOLOGY INFORMATION

Toxicology Information: Oral Lowest Lethal Dose (mouse): 7g/kg
Eye: Eye contact with PETN core may cause irritation and mild abrasion.
Ingestion: Ingestion of substantial amounts of PETN core may cause headaches, dizziness, nausea and vomiting. PETN is a vasodilator and produces dilation of blood vessels.
Skin contact: Contact of explosive charge inside may cause redness, irritation and itching.
Inhalation: Not a likely route of exposure. Inhalation of product vapors of powders may cause irritation of nose, throat and respiratory system.
Chronic Effects: PETN has been shown to be a vasodilator and overexposure can cause headaches, weakness and fall in blood pressure. Repeated or prolonged exposure may cause skin sensitization.

12.0 ECOLOGICAL INFORMATION

Avoid contaminating waterways.

13.0 DISPOSAL CONSIDERATION

Waste Disposal Methods: THE DISPOSAL OF DAMAGED OR DETERIORATED ELECTRIC DETONATORS MUST BE CARRIED OUT IN ACCORDANCE WITH ALL FEDERAL AND STATE REGULATIONS.

14.0 TRANSPORT INFORMATION

Classified as Class 1 Dangerous Goods. Transport in accordance with the local, state and federal laws and regulations.

Shipping name	Cord, Detonating, flexible
General description	Detonating Cord
UN Classification	1.1D
UN Number	0065
Hazchem code	E
Poisons schedule	Not scheduled

15.0 REGULATORY INFORMATION

Hazard Category

Explosive

16.0 OTHER INFORMATION

Disclaimer ***The information described in this material safety data sheet cannot possibly cover every application of the product or variation of conditions under which the product is used. The recommendations are based on the manufacturer's experiences and research. They are believed to be accurate, but no warranties are made, expressed or implied. The information is offered as typical and not as a product specification. The recommended handling procedures are believed to be generally applicable, however, each user should, review these recommendations in the context of the specific intended use.

The information given should be dealt with by competent and experienced personnel in accordance with all applicable local, state, and federal regulations.

The information provided has been compiled as current and accurate as possible, according to universally known knowledge and researches. As the conditions under which the products are used are not within Tenaga Kimia Sdn. Bhd.'s control, Tenaga Kimia Sdn. Bhd. will not be responsible for any liabilities arising from the use of the products and the information in this data sheet.

Tenaga Kimia Sdn. Bhd. makes no express or implied warranties, other than those governed by the law of Malaysia.

Other precautions Refer to Manufacturer's Instructions and Warnings supplied with Technical Data Sheet.