



## TENAGA KIMIA SENDIRIAN BERHAD (26191A)

### Administration & Sales Office

Address: No. 8, Jalan SS 22/21, Damansara Jaya,  
47400 Petaling Jaya, Selangor  
Tel: + 60 – 3 – 7729 7464  
Fax: + 60 – 3 – 7729 8383  
E-mail: [sales@tenagakimia.com](mailto:sales@tenagakimia.com)

### Factory

Address: Lot 5065, 48100 Batu Arang,  
Selangor, Malaysia  
Tel: + 60 – 3 – 6035 2801  
Fax: + 60 – 3 – 6035 2802  
E-mail: [plant@tenagakimia.com](mailto:plant@tenagakimia.com)

Website: <http://www.tenagakimia.com>

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## MATERIAL SAFETY DATA SHEET

Date of issue: January 2006

### 1.0 PRODUCT AND COMPANY IDENTIFICATION

<b>Product name</b>	Detonating Cord (5g) Detonating Cord (10g) Detonating Cord (11g) Detonating Cord (40g)
<b>General name</b>	Detonating Cord
<b>General description</b>	Detonating Cord
<b>Product use</b>	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.
<b>Company Name</b>	Tenaga Kimia Sdn. Bhd.
<b>Company Address</b>	No. 8, Jalan SS 22/21, Damansara Jaya, 47400 Petaling Jaya, Selangor, Malaysia.
<b>Emergency Tel</b>	+60 3 6035 2801
<b>Telephone Number</b>	+60 3 7729 7464
<b>Fax</b>	+60 3 7729 8383

### 2.0 PRODUCT COMPOSITION / INFORMATION ON INGREDIENTS

Ingred 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 Over Exposure: 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 OUTSIDE 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 AND ALKALINES.

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

<b>Eye:</b>	Eye contact with PETN core may cause irritation and mild abrasion.
<b>Ingestion:</b>	Ingestion of substantial amounts of PETN core may cause headaches, dizziness, nausea and vomiting. PETN is a vasodilator and produces dilation of blood vessels.
<b>Skin contact:</b>	Contact of explosive charge inside may cause redness, irritation and itching.
<b>Inhalation:</b>	Not a likely route of exposure. Inhalation of product vapors of powders may cause irritation of nose, throat and respiratory system.
<b>Chronic Effects:</b>	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.

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

## 15.0 REGULATORY INFORMATION

### Hazard Category

Explosive