



# MATERIAL SAFETY DATA SHEET

## DETONATING CORD

DATE SEPTEMBER 2004

MSDS NO. C-1

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### SECTION I

Issued by the Safety and Compliance Dept.

AUSTIN POWDER COMPANY  
25800 SCIENCE PARK DRIVE  
CLEVELAND, OHIO 44122  
EMERGENCY PHONE  
DAY 216-464-2400  
NIGHT 216-464-2407

TRADE NAME AND SYNONYMS  
Lite Line, Scotch Cord, A-Cord, Tuff-Kote, No. 40, No. 50  
No. 60, etc. Seismic Detonating Cord, Slide Line Series,  
Heavy Duty Series, Cordeau Detonant Fuse, Cord,  
Detonating, Flexible, Fine Line, Trim Line, Special 18, 25,  
30,40 and 50.Detonating Cord C3

### SECTION II HAZARDOUS INGREDIENTS

PETN, Pentaerythritol tetranitrate,  $C_5H_8N_4O_{12}$ ,

CAS No. 78-11-5

### SECTION III PHYSICAL DATA

BOILING POINT	N/A	VAPOR PRESSURE (mm Hg)	Negligible at 20°C
SPECIFIC GRAVITY ( $H_2O = 1$ )	1.76	VAPOR DENSITY (Air = 1)	N/A
PERCENT VOLATILE BY VOL. (%)	N/A	EVAPORATION RATE:	N/A
SOLUBILITY IN WATER:	Negligible		
APPEARANCE AND ODOR:	Flexible cord with an explosive core of PETN protected within a textile casing covered by a seamless polyethylene jacket. PETN is a white crystalline solid. No odor.		

### SECTION IV FIRE AND EXPLOSION DATA

FLASH POINT:	N/A
FLAMMABLE LIMITS:	N/A
EXTINGUISHING MEDIA:	See below
SPECIAL FIREFIGHTING PROCEDURES:	Do not fight fire. Withdraw personnel immediately. Allow fire to burn itself out.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	May explode when subjected to fire or shock. Avoid toxic fumes from fire.

### SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: ACGIH: PETN-None  
OSHA : PETN-None

EFFECTS OF OVEREXPOSURE: Ingestion of PETN may cause headache and nausea. PETN is a vasodilator and produces dilation of blood vessels.

EMERGENCY AND FIRST AID PROCEDURES:

FUMES:	Remove to fresh air.
IF INGESTED:	Obtain medical attention immediately.



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### SECTION VI REACTIVITY DATA

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**STABILITY:** Stable under normal conditions. May explode when subjected to fire or shock.

**INCOMPATIBILITY (MATERIALS TO AVOID):** Avoid contact with strong acids or alkalis.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Gaseous nitrogen oxides and carbon oxides: Toxic decomposition products including carbon monoxide (CO) may migrate to off blast-site areas.

**HAZARDOUS POLYMERIZATION WILL NOT OCCUR.**

### SECTION VII SPILL OR LEAK PROCEDURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Sweep up and dispose of all spilled material immediately. Do not permit smoking or open flames near spill site.

**WASTE DISPOSAL METHOD:** Dispose of under direct supervision of a qualified person according to local, state and federal regulations. Call Austin Powder for recommendations and assistance. This material may become a hazardous waste under certain conditions and must be collected, labeled and disposed of per state and federal hazardous waste regulations.

**TRANSPORTATION EMERGENCIES** involving spills, leaks, fires or exposures in the United States: **CALL CHEMTREC** for emergencies only: 1-800-424-9300. For calls originating outside the U. S. dial the U. S. access number followed by: 1-703-527-3887. All calls are recorded.

### SECTION VIII SPECIAL PROTECTION INFORMATION:

**RESPIRATORY PROTECTION:** Not required under normal conditions.

**VENTILATION:** Not required under normal conditions.

**PROTECTIVE GLOVES:** Not required except to prevent abrasive injuries.

**EYE PROTECTION:** Not required under normal conditions.

### SECTION IX SPECIAL PRECAUTIONS

COMPLY WITH THE SAFETY LIBRARY PUBLICATION NO. 4 "WARNINGS AND INSTRUCTIONS" AS ADOPTED BY THE INSTITUTE OF MAKERS OF EXPLOSIVES.

TRANSPORTATION, STORAGE AND USE MUST COMPLY WITH OSHA SAFETY AND HEALTH STANDARDS 29CFR1910.109, APPLICABLE MSHA REGULATIONS, THE DOT AND HAZARDOUS MATERIALS REGULATIONS, BATF REQUIREMENTS AND STATE AND LOCAL TRANSPORTATION, STORAGE AND USE REGULATIONS AND ORDINANCES.

DOT or IMDG proper shipping description: Cord, Detonating, Flexible, 1.1D, UN0065, PG II

May be offered for transportation domestically and transported as Cord, Detonating (UN 0289), Division 1.4 compatibility group D (1.4D) Explosives, if the explosive content does not exceed 100 grains per linear foot (21.3 grams per meter) and the gross weight of all packages of detonating cord does not exceed (45 KG) 99 pounds per vehicle. See 49 CFR 173.63

The maximum recommended temperature for detonating cord is 160°F (71°C). None of the components are listed in the 1987 IARC Monographs, Group 1, 2A or 2B as known, probable, or possible carcinogens, nor are they listed in the NTP annual report on carcinogens.