



MATERIAL SAFETY DATA SHEET

SHOCK★STAR™ SHOCK TUBING

DATE MAY 2004

MSDS NO. C-3

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SECTION I		Issued by the Safety and Compliance Dept.	
AUSTIN STAR DETONATOR COMPANY 901 CANTU ROAD BROWNSVILLE, TX 78520 24 HOUR PHONE: 956-831-7751		TRADE NAME AND SYNONYMS Signal Transmission Tubing Shock Tube LEAD-IN-LINE (L-I-L)	
SECTION II HAZARDOUS INGREDIENTS			
The explosive components of this device (HMX and Aluminum Powder) are less than 0.4 percent by weight of the shock tube and are totally enclosed in the tubing.			
SECTION III PHYSICAL DATA			
BOILING POINT	N/A	VAPOR PRESSURE (mm Hg)	N/A
SPECIFIC GRAVITY (H ₂ O = 1)	N/A	VAPOR DENSITY (Air = 1)	N/A
PERCENT VOLATILE BY VOL. (%)	None	EVAPORATION RATE:	N/A
SOLUBILITY IN WATER:	Negligible		
APPEARANCE AND ODOR: Flexible ionomer resin plastic tubing with a minute amount of an extremely fine, silver colored explosive composition on the interior walls of the tube. No odor.			
SECTION IV FIRE AND EXPLOSION DATA			
FLASH POINT:	N/A		
FLAMMABLE LIMITS:	N/A		
EXTINGUISHING MEDIA:		Water, CO ₂ , foam, dry chemical fire extinguisher.	
SPECIAL FIREFIGHTING PROCEDURES:		Not determined.	
UNUSUAL FIRE AND EXPLOSION HAZARDS:		Avoid toxic fumes from fire.	
SECTION V HEALTH HAZARD DATA			
THRESHOLD LIMIT VALUE:	Not determined.		
EFFECTS OF OVEREXPOSURE:	Not determined.		
EMERGENCY AND FIRST AID PROCEDURES:			
FUMES:	Remove to fresh air.		



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901 Cantu Road
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SECTION VI REACTIVITY DATA

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STABILITY: Stable.

INCOMPATIBILITY (MATERIALS TO AVOID): None known.

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: Pick up containers or units by hand.

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.

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: Avoid breathing fumes from detonation.

VENTILATION: Not required under normal conditions.

PROTECTIVE GLOVES: Not required.

EYE PROTECTION: Not required.

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.

Avoid any situation that may cause entanglement with machinery or moving equipment. Jerking and breaking Shock Tubing may lead to a premature detonation known as "Snap and Shoot". Do not drive equipment over Shock Tubing.
DOT or IMDG proper shipping description:

- 1) Standard packaging: Articles, Explosive, n.o.s., (contains HMX/Aluminum), 1.4S, UN0349, PGII.
- 2) Not regulated as an explosive when packaged on production or large volume shipping spools with end caps. May be shipped as: Plastic Tubing.

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.