



TRUFLEX/PANG RUBBER PRODUCTS COMPANY, INC.
1667 NORTH MAIN STREET
LOS ANGELES, CA 90012
(323) 224-6300 (phone)
(323) 225-0672 (fax)

EFFECTIVE: 12/19/00
SUPERCEDES: 8/27/97
MSDS NO.: ACTMSD
REVISION NO.: 1

ACTIVATOR/HARDNER

MATERIAL SAFETY DATA SHEET

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: ACTIVATOR/HARDNER
CATALOG NUMBER(S): 968F, 969F, 970F, 973F
PRODUCT USE: CEMENT ADDITIVE

MANUFACTURED FOR TRUFLEX/PANG BY:

Tech International
200 East Coshocton Street
Johnstown, OH 43031
(740) 967-9015 phone
(740) 967-1039 fax

FOR CUSTOMER SERVICE INFORMATION, CONTACT:

(323) 224-6300

EMERGENCY TELEPHONE NUMBER (24 hrs.):

CHEMTREC (800) 424-9300

MSDS PREPARED BY:

John Gramza, Jr.
Regulatory Affairs Director
Tech International
200 East Coshocton Street
Johnstown, OH 43031
(740) 967-9015

SECTION 2. CHEMICAL COMPOSITION/HAZARDOUS INGREDIENTS

INGREDIENT (COMMON NAME)	CAS NO.	% (by vol.)	OSHA PEL	ACGIH TLV	NOTES
Tris-(4-Isocyanatophenyl) Thiophosphate	4151-51-3	27	0.005 ppm	400 ppm	1
Ethyl Acetate	141-78-6	70 - 72.5	400 ppm	400 ppm	
Monochlorobenzene	108-90-7	0.5 - 3.0	75 ppm	75 ppm	

NOTES

1	An exposure guideline of 0.005 ppm TWA, and 0.02 ppm STEL is suggested based upon the established exposure limits for Toluene Diisocyanate.
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SECTION 3. PHYSICAL CHARACTERISTICS

INITIAL BOILING POINT	171°F (77°C) @ 760.00 mm Hg
VAPOR PRESSURE	54.6 mm Hg @ 68.00°F
VAPOR DENSITY (air = 1)	Heavier than air
SPECIFIC GRAVITY (water = 1)	1.0 @ 68.00 ° F
% VOLATILES	75.5%
VOC CONTENT	5.69 lbs/gal (682.5 g/L)
EVAPORATION RATE	Slower than Ether
pH	N/A
APPEARANCE	Yellow to brown liquid
ODOR	Strong solvent

SECTION 4. FIRE AND EXPLOSION DATA

FLASH POINT AND METHOD	23 ° F (-5° C)
LEL	2.2%
UEL	11%
EXTINGUISHING MEDIA	Foam, carbon dioxide or dry chemical
SPECIAL FIREFIGHTING PROCEDURES	Wear self-contained breathing apparatus with a full-face piece operated in the positive pressure demand mode when fighting fires.
UNUSUAL FIRE AND EXPLOSION HAZARDS	Never use a welding or cutting torch on or near container (even when empty) because product (even just residue), can ignite explosively. All 5-gallon or larger metal containers should be grounded and bonded when material is being transferred. Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking or other ignition sources distant from the material handling point.



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SECTION 5. REACTIVITY AND STABILITY DATA

STABILITY	Stable
HAZARDOUS POLYMERIZATION	May occur
INCOMPATIBILITY (materials or conditions to avoid)	Strong oxidizers, strong acids, water, alcohols, acids, alkalis
HAZARDOUS DECOMPOSITION PRODUCTS	Carbon dioxide, carbon monoxide, various hydrocarbons, isocyanate vapors, phosgene, chlorine and small amounts of HCN

SECTION 6. HEALTH HAZARD INFORMATION

EYE CONTACT	Exposure to product may cause eye irritation. Symptoms include stinging, tearing, redness and swelling.
INHALATION	Exposure to vapor or mist is possible. Isocyanate vapors or mist above the exposure guidelines can irritate the mucous membranes in the respiratory tract. Chronic exposure to isocyanates can cause sensitization (chemical asthma) to the chemical, causing symptoms to occur at levels below the published guidelines. Symptoms typically seen at air concentrations above the recommended exposure limits may include: irritation to nose, throat and respiratory system, metallic taste, muscle weakness. Initial central nervous system (CNS) excitation (euphoria, exhilaration, light-headedness) followed by CNS depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other CNS effects (confusion, impaired coordination, coma and possibly death).
INGESTION	Single dose oral toxicity is low. Symptoms may include: gastrointestinal irritation (nausea, vomiting, diarrhea), CNS depression.
SKIN CONTACT	Exposure may cause mild skin irritation. Prolonged or repeated exposure may dry skin. Symptoms include: redness, burning, drying, cracking and skin burns.
TARGET ORGANS EFFECTED	CNS, liver, kidneys, skin, eyes

CARCINOGENICITY - LISTED BY:

ACGIH	No	IARC	No	NTP	No	OSHA	No
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SECTION 7 EMERGENCY AND FIRST AID INFORMATION

EYE CONTACT	If symptoms develop, move individual away from exposure and into fresh air. Flush eyes with water for at least 15 minutes while holding eyelids apart. If symptoms persist, seek medical attention.
INHALATION	If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen. Keep person warm and quiet.
INGESTION	If swallowed, DO NOT induce vomiting. This material is an aspiration hazard. If person is drowsy or unconscious, place on left side with head down. Seek immediate medical attention.
SKIN CONTACT	Remove contaminated clothing. Wash exposed area with soap and water. Launder contaminated clothing before reuse. If symptoms persist, seek medical attention.

SECTION 8. PROTECTIVE EQUIPMENT AND OTHER CONTROL MEASURES

EYE PROTECTION	Chemical splash goggles in compliance with OSHA regulations are advised, however OSHA regulations also permit other types of safety glasses. Consult your safety equipment representative.
RESPIRATORY PROTECTION	If workplace exposure limit (s) of product or any component is exceeded (See Section 2), a NIOSH/MSHA approved respirator is advised in the absence of proper environmental control. A supplied-air respirator is recommended. Engineering or administrative controls should be implemented to reduce exposure.
SKIN PROTECTION	Wear resistant gloves, such as: polyvinyl alcohol, nitrile
ENGINEERING CONTROLS	Provide sufficient mechanical (general or local exhaust) ventilation to maintain exposure below TLV(s). Explosion-proof ventilation system is acceptable.
OTHER PROTECTIVE EQUIPMENT	To prevent repeated or prolonged skin contact, wear impervious clothing and boots.
OTHER HYGIENIC AND WORK PRACTICES	Use good personal hygiene work practices. Wash hands before eating, drinking, smoking or using toilet facilities. Promptly remove soiled clothing and wash before reuse.



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SECTION 9. SPILL OR RELEASE PROCEDURES

SMALL SPILL	Eliminate all sources of ignition (flames, pilot lights, electrical sparks) and absorb material on vermiculite, floor absorbent or other absorbent material.
LARGE SPILL	Eliminate all sources of ignition (flames, pilot lights, electrical sparks, etc.). Persons not wearing appropriate protective equipment should be excluded from area of spill until cleanup has been completed. Stop spill at source. Prevent material from entering drains, sewers, streams, or other bodies of water. Prevent from spreading by using dikes, booms, etc. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled material into clean, approved containers for recovery or disposal. Absorb unrecoverable material onto vermiculite, floor absorbent or other absorbent material, and transfer into clean approved containers for disposal.

SECTION 10. DISPOSAL CONSIDERATIONS

Disposal of material should be done in accordance with all Federal (40 CFR Part 261), State and Local environmental control regulations. In its unused state, the product exhibits the EPA hazardous waste characteristic for ignitability (RCRA waste code D001).

SECTION 11. TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME (49 CFR 172.101)	Flammable Liquid, N.O.S.
HAZARD CLASS (DOT, IATA)	3
HAZARD CLASS (IMO)	3.2
ID NUMBER	UN 1993
PACKING GROUP	II
ADDITIONAL DESCRIPTION	Triisocyanate in Ethyl Acetate
LABELS REQUIRED	Flammable Liquid (49 CFR 172.419)
1996 NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER	128
EmS NUMBER	3-07
MFAG TABLE NO.	330
REPORTABLE QUANTITY (DOT)	1000 lbs. (454 kg.)

SECTION 12. OTHER REGULATORY INFORMATION



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This product contains the following toxic substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (Emergency Planning and Community Right-To-Know Act) of 1986 and of 40 CFR Part 372:

CHEMICAL	CAS NO.	% COMPOSITION (by vol.)
Tris-(Isocyanatophenyl) Thiophosphate	4151-51-3	27
Ethyl Acetate	141-78-6	70 - 72.5
Monochlorobenzene	108-90-7	0.5 - 3.0

TOXIC SUBSTANCES CONTROL ACT: The chemical substances in this product are listed on the TSCA Section 8 Chemical Substance Inventory List (40 CFR Part 710).

SECTION 13. NFPA RATINGS

HEALTH	3	FLAMMABILITY	3	REACTIVITY	0
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SECTION 14. ADDITIONAL INFORMATION

Containers of this product may be hazardous when emptied. Since emptied containers retain product residues (vapors, liquid, and/or solids), all hazard precautions given in this data sheet must be observed.

Hydrocarbon solvents are basically non-conductors of electricity and can become electrostatically charged during mixing, filtering, pouring or pumping at high flow rates. If this charge reaches a sufficiently high level, sparks can form which may ignite the vapors of the flammable liquids.

The information contained herein is information received from our raw material suppliers and other sources believed to be reliable. This data is not warranted whether originating with Truflex/Pang, or not. Recipients are advised to confirm in advance of the need that the information is current, applicable and suitable to their circumstances. It is the responsibility of the user to comply with all applicable Federal, State and Local laws and regulations.

This MSDS complies with the OSHA Hazard Communication Standard (29 CFR 1910.1200).