

# GRAINGER®

ITW DEVCON  
Z AEROSOL Revised: 12/3/2001

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## Item Number:

1JZT5

## Mfg. Model Number:

12000

ITW DEVCON

MATERIAL SAFETY DATA SHEET

PART NO. : 12000PN

Z AEROSOL

THIS PRODUCT APPEARS IN THE FOLLOWING STOCK NUMBER(S) : 12000

LAST REVISED: 12/03/01

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## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

TRADENAME: Z AEROSOL

### GENERAL USE:

A ZINC RICH COATING THAT PROTECTS IRON AND STEEL FROM RUST AND CORROSION.

### CHEMICAL FAMILY:

ZINC IN EPOXY-ESTER BINDER AND HYDROCARBON CARRIER.

### MANUFACTURER:

ITW DEVCON  
30 ENDICOTT ST.  
DANVERS, MA 01923

### EMERGENCY INFORMATION:

EMERGENCY TELEPHONE NUMBER:  
(CHEMTREC): (800) 424-9300  
OTHER CALLS: (978) 777-1100

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS CONSTITUENTS:

CONSTITUENT	ABBR.	CAS NO.	WEIGHT PERCENT
BUTANE		106978	10-30
TOLUENE		108883	1-10
LIGHT ALIPHATIC PETROLEUM SOLVENT NAPHTHA		64742898	1-10
ZINC		7440666	30-60
PROPANE		74986	10-20
METHYL ETHYL KETONE	MEK	78933	10-30

CONSTITUENT	EXPOSURE LIMITS		
	ACGIH TLV	OSHA PEL	OTHER LIMITS
BUTANE	800 PPM	800 PPM	N/E
TOLUENE	50 PPM	200 PPM	N/E
LIGHT ALIPHATIC PETROLEUM SOLVENT NAPHTHA	N/E	N/E	N/E
ZINC	N/E	N/E	N/E
PROPANE	2500 PPM	1000 PPM	N/E
METHYL ETHYL KETONE	200 PPM	200 PPM	200 PPM (CANADA)

"TLV" MEANS THE THRESHOLD LIMIT VALUE EXPOSURE (EIGHT-HOUR, TIME-WEIGHTED AVERAGE, UNLESS OTHERWISE NOTED) ESTABLISHED BY THE AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS.

"STEL" INDICATES A SHORT-TERM EXPOSURE LIMIT.

"PEL" INDICATES THE OSHA PERMISSIBLE EXPOSURE LIMIT.

"N/E" INDICATES THAT NO EXPOSURE LIMIT HAS BEEN ESTABLISHED.

AN ASTERISK (\*) INDICATES A SUBSTANCE WHOSE IDENTITY IS A TRADE SECRET OF OUR SUPPLIER AND UNKNOWN TO US.

### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW:

APPEARANCE, FORM, ODOR: GRAY OPAQUE LIQUID WITH ODOR.

#### DANGER!

EXTREMELY FLAMMABLE. EYE, SKIN AND RESPIRATORY IRRITANT. MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS.

#### POTENTIAL HEALTH EFFECTS:

##### PRIMARY ROUTES OF EXPOSURE:

- (X) SKIN CONTACT
- ( ) SKIN ABSORPTION
- (X) EYE CONTACT
- (X) INHALATION
- ( ) INGESTION

##### SYMPTOMS OF ACUTE OVEREXPOSURE:

##### SKIN:

MAY CAUSE SLIGHT IRRITATION OR DERMATITIS. REDNESS AND ITCHING OR BURNING SENSATION MAY INDICATE EXCESSIVE SKIN EXPOSURE.

##### EYES:

SLIGHT IRRITATION AS INDICATED BY REDNESS AND ITCHING OR BURNING SENSATION.

##### INHALATION:

HIGHER CONCENTRATIONS CAN CAUSE DIZZINESS, NAUSEA, HEADACHE, AND LOSS OF COORDINATION.

##### INGESTION:

DO NOT TAKE INTERNALLY. MAY CAUSE VOMITING. (DRAWING OF VOMIT INTO LUNGS CAN CAUSE VERY DANGEROUS CHEMICAL PNEUMONITIS WITH GASPING AND BLuish SKIN).

##### EFFECTS OF CHRONIC OVEREXPOSURE:

PROLONGED OVEREXPOSURE TO SOLVENT INGREDIENTS IN THIS PRODUCT MAY CAUSE

ADVERSE EFFECTS TO THE LIVER, URINARY TRACT, CARDIOVASCULAR, AND REPRODUCTIVE SYSTEMS. REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INGESTION OF LARGE QUANTITIES CAN CAUSE CONVULSIONS AND DEATH.

CARCINOGENICITY:

OSHA REGULATED: NO

ACGIH: NO

NATIONAL TOXICOLOGY PROGRAM: NO

INTERNATIONAL AGENCY FOR RESEARCH ON CANCER: NO

CANCER-SUSPECT CONSTITUENT(S): NONE

MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED BY EXPOSURE:

INHALATION OF THE SOLVENTS MAY AGGRAVATE EXISTING RESPIRATORY DISORDERS.

OTHER EFFECTS:

METHYL ETHYL KETONE MAY INCREASE THE NERVOUS SYSTEM EFFECTS OF OTHER SOLVENTS.

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## 4. FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH EYE WITH CLEAN WATER FOR AT LEAST 20 MINUTES WHILE GENTLY HOLDING EYELIDS OPEN, LIFTING UPPER AND LOWER LIDS. GET IMMEDIATE MEDICAL ATTENTION.

FIRST AID FOR SKIN:

IMMEDIATELY REMOVE CONTAMINATED CLOTHING AND EXCESS CONTAMINANT. FLUSH SKIN WITH WATER FOR AT LEAST 15 MINUTES. WASH THOROUGHLY WITH SOAP AND WARM WATER. CONSULT A PHYSICIAN IF IRRITATION DEVELOPS.

FIRST AID FOR INHALATION:

REMOVE PATIENT TO FRESH AIR. ADMINISTER OXYGEN IF BREATHING IS DIFFICULT. GET MEDICAL ATTENTION IF SYMPTOMS PERSIST.

FIRST AID FOR INGESTION:

DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS (IF SITTING) OR TO THE SIDE (IF LYING DOWN) TO PREVENT ASPIRATION. GET IMMEDIATE MEDICAL ATTENTION.

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## 5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:

- WATER
- CARBON DIOXIDE
- DRY CHEMICAL
- FOAM
- ALCOHOL FOAM

FLASH POINT (DEG. F): -156 (PROPANE)

METHOD: ESTIMATE

EXPLOSIVE LIMITS IN AIR (PERCENT):

LOWER: 0.9

UPPER: 10.0

SPECIAL FIREFIGHTING PROCEDURES:

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING. ISOLATE FROM HEAT, ELECTRICAL EQUIPMENT, SPARKS, AND OPEN FLAME. WATER MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT PRESSURE BUILD-UP AND POSSIBLE AUTOIGNITION OR EXPLOSION WHEN EXPOSED TO EXTREME HEAT.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT.

HAZARDOUS PRODUCTS OF COMBUSTION:

OXIDES OF CARBON AND OTHER UNIDENTIFIED ORGANIC PRODUCTS OF COMBUSTION.

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## 6. ACCIDENTAL RELEASE MEASURES

**SPILL CONTROL:**  
AVOID PERSONAL CONTACT. ELIMINATE IGNITION SOURCES. VENTILATE AREA.

**CONTAINMENT:**  
DIKE, CONTAIN AND ABSORB WITH A SUITABLE NON-COMBUSTIBLE MATERIAL.

**CLEANUP:**  
FOR LARGE SPILLS, PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN INERT ABSORBENT AND DISPOSE OF PROPERLY (RCRA HAZARDOUS WASTE).

**SPECIAL PROCEDURES:**  
PREVENT SPILL FROM ENTERING DRAINAGE/SEWER SYSTEMS, WATERWAYS, AND SURFACE WATERS. USE NON-SPARKING TOOLS.

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## 7. HANDLING AND STORAGE

**HANDLING PRECAUTIONS:**  
DURING USE AND UNTIL ALL VAPORS ARE GONE. KEEP AREA VENTILATED, DO NOT SMOKE, EXTINGUISH ALL FLAMES, PILOT LIGHTS, AND HEATERS. TURN OFF STOVES, ELECTRIC TOOLS AND APPLIANCES, AND ALL OTHER SOURCES OF IGNITION. CONTENTS UNDER PRESSURE. DO NOT PUNCTURE, INCINERATE OR EXPOSE TO TEMPERATURES GREATER THAN 120 DEGREES FAHRENHEIT. HEAT FROM SUNLIGHT, RADIATORS, STOVES, HOT WATER AND OTHER HEAT SOURCES COULD CAUSE CONTAINER TO BURST. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS CAN BE HARMFUL OR FATAL.

**STORAGE:**  
STORE IN A COOL, DRY PLACE. KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**ENGINEERING CONTROLS:**

**VENTILATION:**  
USE VENTILATION THAT IS ADEQUATE TO KEEP EMPLOYEE EXPOSURE TO AIRBORNE CONCENTRATIONS BELOW EXPOSURE LIMITS (OR TO THE LOWEST FEASIBLE LEVELS WHEN LIMITS HAVE NOT BEEN ESTABLISHED). ALTHOUGH GOOD GENERAL MECHANICAL VENTILATION IS USUALLY ADEQUATE FOR MOST INDUSTRIAL APPLICATIONS, LOCAL EXHAUST VENTILATION IS PREFERRED (SEE ACGIH - INDUSTRIAL VENTILATION). LOCAL EXHAUST MAY BE REQUIRED FOR CONFINED AREAS (SEE OSHA 1910.146).

**OTHER ENGINEERING CONTROLS:**  
KEEP CONTAINER TIGHTLY CLOSED. OBSERVE LABEL PRECAUTIONS. HAVE EMERGENCY EYE WASH AND SAFETY SHOWER PRESENT.

**PERSONAL PROTECTIVE EQUIPMENT:**

**EYE AND FACE PROTECTION:** SAFETY GLASSES WITH UNPERFORATED SIDE SHIELDS.

**SKIN PROTECTION:** CHEMICAL RESISTANT GLOVES.

**RESPIRATORY PROTECTION:**  
NO RESPIRATORY PROTECTION NEEDED FOR NORMAL USE WITH PROPER VENTILATION. IN POORLY VENTILATED AREAS USE NIOSH-APPROVED ORGANIC VAPOR/PARTICULATE CARTRIDGES OR AIR-SUPPLYING RESPIRATOR IN VERY CONFINED AREAS. WEAR DUST/PARTICLE CARTRIDGES DURING ABRADING/SANDING OPERATIONS OF THE DRIED FILM AS EXPOSURE LEVELS DICTATE (SEE OSHA 1910.134).

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**SPECIFIC GRAVITY:** 1.16

BOILING POINT (DEG. F): <0 - 325

MELTING POINT (DEG. F): N/D

VAPOR DENSITY (AIR = 1): >1

VAPOR PRESSURE (MMHg): AT 0 DEG. F

SOLUBILITY IN WATER: N/A

VOC (GRAMS/LITER): 450

pH (5% SOLUTION OR SLURRY IN WATER): N/D

PERCENT VOLATILE BY VOLUME: 88

PERCENT SOLIDS BY WEIGHT: 50.94

## 10. STABILITY AND REACTIVITY

THIS MATERIAL IS CHEMICALLY STABLE. HAZARDOUS POLYMERIZATION WILL NOT OCCUR.

CONDITIONS TO AVOID: HEAT, SPARKS AND OPEN FLAMES.

INCOMPATIBLE MATERIALS: NONE KNOWN.

HAZARDOUS PRODUCTS OF DECOMPOSITION:

BY FIRE: OXIDES OF CARBON AND UNIDENTIFIED ORGANIC COMBUSTION PRODUCTS.

CONDITIONS UNDER WHICH HAZARDOUS POLYMERIZATION MAY OCCUR:

WILL NOT OCCUR.

## 11. TOXICOLOGICAL INFORMATION

ACUTE ORAL EFFECTS:

LD50 (RAT): NO DATA AVAILABLE.

ACUTE DERMAL EFFECTS:

LD50 (RABBIT): NO DATA AVAILABLE.

ACUTE INHALATION EFFECTS:

LC50 (RAT): NO DATA AVAILABLE.

EXPOSURE: HOURS.

EYE IRRITATION: NO DATA AVAILABLE.

SUBCHRONIC EFFECTS: NO DATA.

CARCINOGENICITY, TERATOGENICITY, AND MUTAGENICITY: NO DATA.

OTHER CHRONIC EFFECTS: NO DATA.

TOXICOLOGICAL INFORMATION ON HAZARDOUS CHEMICAL CONSTITUENTS OF THIS PRODUCT:

CONSTITUENT	ORAL LD50 (RAT)	DERMAL LD50 (RABBIT)	INHALATION LC50 4 HR, (RAT)
BUTANE	N/D	N/D	658 G/M3
TOLUENE	636 MG/KG	14100 (MICRO)L/KG	N/D
LIGHT ALIPHATIC PETROLEUM SOLVENT NAPHTHA	N/D	N/D	N/D
ZINC	N/D	N/D	N/D
PROPANE	N/D	N/D	N/D
METHYL ETHYL KETONE	2737 MG/KG	6480 MG/KG	33234 MG/M3

'N/D' = 'NOT DETERMINED'

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## 12. ECOLOGICAL INFORMATION

ECOTOXICITY: NO DATA AVAILABLE.

MOBILITY AND PERSISTENCE: NO DATA AVAILABLE

ENVIRONMENTAL FATE: NO DATA AVAILABLE.

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## 13. DISPOSAL CONSIDERATIONS

PLEASE SEE ALSO SECTION 15, REGULATORY INFORMATION.

WASTE MANAGEMENT RECOMMENDATIONS:  
DO NOT DISPOSE OF IN A LANDFILL. INCINERATION IS THE PREFERRED METHOD OF DISPOSAL.

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## 14. TRANSPORT INFORMATION

PROPER SHIPPING NAME: AEROSOLS\*

TECHNICAL NAME:

HAZARD CLASS: 2

UN NUMBER: 1950

PACKING GROUP: N/A

EMERGENCY RESPONSE GUIDE NO: 126

IMDG PAGE NUMBER: N/A

OTHER:

\*DEPENDING UPON THE SIZE AND TYPE OF CONTAINER, THIS MATERIAL MAY BE RECLASSIFIED AS "CONSUMER COMMODITY, ORM-D" FOR SHIPMENTS WITHIN THE UNITED STATES, OR "LIMITED QUANTITY" ELSEWHERE. REFER TO THE APPROPRIATE REGULATION.

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## 15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

TSCA:  
ALL INGREDIENTS OF THIS PRODUCT ARE LISTED, OR ARE EXEMPT FROM LISTING, ON THE TSCA INVENTORY.

THE FOLLOWING RCRA CODE(S) APPLIES TO THIS MATERIAL IF IT BECOMES WASTE:  
D001

REGULATORY STATUS OF HAZARDOUS CHEMICAL CONSTITUENTS OF THIS PRODUCT:

CONSTITUENT	EXTREMELY HAZARDOUS*	TOXIC CHEMICAL**	CERCLA RQ (LBS)	TSCA 12B EXPORT NOTIFICATION
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BUTANE	NO	NO	0.0	NOT REQUIRED
TOLUENE	NO	YES	0.0	NOT REQUIRED
LIGHT ALIPHATIC PETROLEUM SOLVENT NAPHTHA	NO	NO	0.0	NOT REQUIRED
ZINC	NO	YES	0.0	REQUIRED
PROPANE	NO	NO	0.0	NOT REQUIRED
METHYL ETHYL KETONE	NO	YES	5000.0	NOT REQUIRED

\*CONSULT THE APPROPRIATE REGULATIONS FOR EMERGENCY PLANNING AND RELEASE REPORTING REQUIREMENTS FOR SUBSTANCES ON THE SARA SECTION 301 EXTREMELY HAZARDOUS SUBSTANCE LIST.

\*\*SUBSTANCES FOR WHICH THE "TOXIC CHEMICAL" COLUMN IS MARKED "YES" ARE ON THE SARA SECTION 313 LIST OF TOXIC CHEMICALS, FOR WHICH RELEASE REPORTING MAY BE REQUIRED. FOR SPECIFIC REQUIREMENTS, CONSULT THE APPROPRIATE REGULATIONS.

FOR PURPOSES OF SARA SECTION 312 HAZARDOUS MATERIALS INVENTORY REPORTING, THE FOLLOWING HAZARD CLASSES APPLY TO THIS MATERIAL:

IMMEDIATE HEALTH HAZARD  
 DELAYED HEALTH HAZARD  
 FIRE HAZARD  
 SUDDEN RELEASE OF PRESSURE HAZARD

CANADIAN REGULATIONS:

WHMIS HAZARD CLASS(ES):

B5  
 D2B  
 A

ALL COMPONENTS OF THIS PRODUCT ARE ON THE DOMESTIC SUBSTANCE LIST.

## 16. OTHER INFORMATION

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS) RATINGS:

HEALTH 2\*  
 FLAMMABILITY 4  
 REACTIVITY 1

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