

===== Product Identification =====

Product ID:ZA-43 KIT, ZP-9E ZYGLO DEVELOPER (POST 1/89

MSDS Date:01/06/1989

FSC:6850

NIIN:00-703-7406

MSDS Number: BJNWZ

=== Responsible Party ===

Company Name:MAGNAFLUX CORPORATION

Address:7300 W LAWRENCE AVE

City:CHICAGO

State:IL

ZIP:60656-3504

Country:US

Info Phone Num:708-867-8000

Emergency Phone Num:708-867-8000

Preparer's Name:BRUCE

C. GRAHAM

CAGE:37676

=== Contractor Identification ===

Company Name:ILLINOIS TOOL WORKS INC MAGNAFLUX DIV

Address:3624 WEST LAKE AVENUE

Box:City:GLENVIEW

State:IL

ZIP:60025

Country:US

Phone:847-657-5300/

CAGE:37676

===== Composition/Information on Ingredients =====

Ingred Name:METHYL CHLOROFORM (1,1,1-TRICHLOROETHANE) (SARA III)

CAS:71-55-6

RTECS #:KJ2975000

Fraction by Wt: 65%

Other REC Limits:NONE SPECIFIED

OSHA PEL:350 PPM/450 STEL

ACGIH TLV:350 PPM/450STEL;9192

EPA Rpt Q

ty:1000 LBS
DOT Rpt Qty:1000 LBS
Ozone Depleting Chemical:1

Ingred Name:CHLORODIFLUOROMETHANE
CAS:75-45-6
RTECS #:PA6390000
Fraction by Wt: 25%
Other REC Limits:NONE SPECIFIED
OSHA PEL:1000 PPM
ACGIH TLV:1000PPM; 9192
Ozone Depleting Chemical:2

Ingred Name:METHYLAL (DIMETHOXYMETHANE)
CAS:109-87-5
RTECS #:PA8750000
Fraction by Wt: @2%
Other REC Limits:NONE SPECIFIED
OSHA PEL:1000 PPM
ACGIH TLV:1000 PPM; 9192

Ingred Name:TERT-BUTYL ALCOHOL (SARA III)
CAS:75-65-0
RTECS #:EO1925000
Fraction by Wt
: 1%
Other REC Limits:NONE SPECIFIED
OSHA PEL:100 PPM
ACGIH TLV:100PPM 9394

===== Hazards Identification =====

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:SEE SIGNS AND SYMPTOMS.
Effects of Overexposure:INHALATION:DIZZINESS, DROWSINESS, NAUSEA,
UNCONSCIOUSNESS AT HIGH EXPOSURE. SKIN:IRRITATES BY DISSOLVING SKIN
OILS. NOT ABSORBED THROUGH SKIN IN SIGNIFICA
NT AMOUNTS.
EYES:IRRITATING DUE TO STRONG SOLV ENT ACTION. INGESTION:LOW SINGLE
DOSE TOXICITY IN TEST ANIMALS.
Medical Cond Aggravated by Exposure:NONE

===== First Aid Measures =====

First Aid:INHALATION:REMOVE TO FRESH AIR. IF NOT BREATHING, CALL
EMERGENCY VEHICLE IMMEDIATELY. GIVE MOUTH-TO-MOUTH RESUSCITATION.
IF BREATHING IS DIFFICULT, GIVE OXYGEN, SKIN:WASH OFF WITH FLOWING
WATER OR SHO WER. REMOVE CONTAMINATED CLOTHING AND WASH BEF

ORE

REUSE. USE SOOTHING LOTION. EYES:FLUSH WITH WATER WHILE HOLDING LIDS APART. INGESTION:DO NOT INDUCE VOMITING. CONTACT PHYSICIAN IMMEDIATELY.

===== Fire Fighting Measures =====

Flash Point:NONE

Lower Limits:10

Upper Limits:15

Extinguishing Media:NONE

Fire Fighting Procedures:NONE SPECIFIED BY MANUFACTURER.

Unusual Fire/Explosion Hazard:AEROSOL CANS MAY BURST AT TEMPERATURES OVER 130F. VAPORS PARTIALLY DECOMPOSE TO TOXIC GASES WHEN EXPOSED TO FLAME, ARCS, OR RED HOT SURFACES.

===== Accidental Release Measures =====

Spill Release Procedures:LESS THAN 1 QUART-WIPE UP AND FOLLOW GUIDELINES IN "HANDLING/STORAGE PRECAUTIONS". 1 QUART OR MORE-EVACUATE AREA. ENSURE THAT CLEAN UP CREW WEARS ALL PERSONAL SAFETY WEAR AS PRESENTED IN "PROTECTIVE E QUIPMENT SECCTION".

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

===== Handling and Storage =====

Handling and

Storage Precautions:DO NOT USE AROUND FLAMES, ARCS, OR RED HOT SURFACES. DO NOT HEAT CANS ABOVE 130F. STORE AWAY FROM HEAT SOURCES.

Other Precautions:DO NOT BREATHE VAPORS. EXPOSURES ABOVE THE TLV (350 PPM) CAN RESULT IN CLUMSINESS AND POOR JUDGEMENT.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:IN POORLY VENTILATED AREAS, USE A RESPIRATOR WITH CHEMICAL CARTRIDGE.

Ventilation:GOOD VENTILATION.

Protective Gloves:NITRILE RUBBER GLOVES

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Eye Protection:FULL GOGGLES IF APPLICATION WARRANTS.
Other Protective Equipment:NONE SPECIFIED BY MANUFACTURER.
Work Hygienic Practices:NONE SPECIFIED BY MANUFACTURER.
Supplemental Safety and Health
ITEM IS 4 PARTS KIT WHICH ARE AS FOLLOWS: PENETRANT, ZL-27A (REPLACES
ZL-22D) - 1 CAN; DEVELOPER, ZP-9E - 1 CAN; DEVELOPER, ZP-4B - 2
CANS; CLEANER/REMOVER, SKC-NF/ZC-7C - 4 CANS. THIS ENTRY DESCRIBES
DEVELOPER ZP-9E; KEY1:J7

===== Physical/Chemical Properties =====
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HCC:V3
Boiling Pt:B.P. Text:162F,72C
Vapor Pres:230 MMHG
Vapor Density:4
Spec Gravity:1.3
pH:7
Evaporation Rate & Reference:3X THAT OF ETHYL ALCOHOL
Solubility in Water:NEGLIGIBLE
Appearance and Odor:WHITE MOBIL LIQUID BEFORE FILLING TO AEROSOL CANS.
Percent Volatiles by Volume:100

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES
POWDERED ZINC AND POWDERED ALUMINUM.
Stability Condition to Avoid:PARTIALLY DECOMPOSES IN
FLAME, ARCS, NEAR
RED HOT SURFACES.
Hazardous Decomposition Products:PHOSGENE, HYDROCHLORIC ACID.

===== Disposal Considerations =====

Waste Disposal Methods:DISPOSE OF AS EPA HAZARDOUS WASTE #F002. MAY BE
SENT TO SOLVENT RECLAIMER. ENSURE THAT AEROSOL CANS ARE EMPTY AND
DEPRESSURIZED BEFORE DISCARDING, UNLESS A WASTE TREATMENT FACILITY
IS APPROVED TO ACCE PT THEM AS IS.

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