

ZIPPO MFG -- ZIPPO BLEND 1
MATERIAL SAFETY DATA SHEET
NSN: 914000N056452
Manufacturer's CAGE: 2W274
Part No. Indicator: A
Part Number/Trade Name: ZIPPO BLEND 1

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General Information
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Company's Name: ZIPPO MFG CO
Company's Street: CONGRESS ST EXTENTION
Company's City: BRADFORDE
Company's State: PA
Company's Country: US
Company's Zip Code: 16701
Company's Emerg Ph #: 814-362-4541
Company's Info Ph #: 814-362-4541
Record No. For Safety Entry: 001
Tot Safety Entries This Stk#: 001
Status: SMJ
Date MSDS Prepared: 23SEP93
Safety Data Review Date: 29DEC94
MSDS Serial Number: BWFZJ
Hazard Characteristic Code: NK

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Ingredients/Identity Information
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Proprietary: NO
Ingredient: VM & P NAPHTHA; (ALIPHATIC PETROLEUM DISTILLATES); BP:185F/85C
@ 760 MM/HG. VP:38 MM/HG @ 68F/20C. CNTNS INGREGS 2 & 3.
Ingredient Sequence Number: 01
Percent: 19
NIOSH (RTECS) Number: 1003161VN
CAS Number: 64742-89-8
OSHA PEL: 400 PPM MFR
ACGIH TLV: N/K (FP N)

Proprietary: NO
Ingredient: TOLUENE (SARA III)
Ingredient Sequence Number: 02
Percent: <7
NIOSH (RTECS) Number: XS5250000
CAS Number: 108-88-3
OSHA PEL: 200 PPM
ACGIH TLV: 50 PPM

Proprietary: NO
Ingredient: CYCLOHEXANE (SARA III)
Ingredient Sequence Number: 03
Percent: <3.5
NIOSH (RTECS) Number: GU6300000
CAS Number: 110-82-7
OSHA PEL: 300 PPM
ACGIH TLV: 300 PPM

Proprietary: NO
Ingredient: VM & P NAPHTHA; (ALIPHATIC PETROLEUM DISTILLATES); CONTAINS
INGS 5 & 6.
Ingredient Sequence Number: 04
Percent: 81
NIOSH (RTECS) Number: 1003161VN
CAS Number: 64742-89-8
OSHA PEL: 300 PPM MFR
ACGIH TLV: 300 PPM MFR

Proprietary: NO
Ingredient: XYLENE (SARA III)
Ingredient Sequence Number: 05
Percent: <8
NIOSH (RTECS) Number: ZE2100000
CAS Number: 1330-20-7
OSHA PEL: 100 PPM
ACGIH TLV: 100 PPM

Proprietary: NO
Ingredient: BENZENE, ETHYL-; (ETHYL BENZENE) (SARA III)
Ingredient Sequence Number: 06
Percent: 2
NIOSH (RTECS) Number: DA0700000
CAS Number: 100-41-4
OSHA PEL: 100 PPM
ACGIH TLV: 100 PPM

Proprietary: NO
Ingredient: SUPDAT:AT LOCATIONS DISTANT FROM MATERIAL HANDLING POINT.
Ingredient Sequence Number: 07
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: EFTS OF OVEREXP:PNEUMONITIS WHICH CAN BE FATAL.
Ingredient Sequence Number: 08
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: FIRST AID PROC:WHICH CAN BE FATAL. INHAL:REMOVE TO FRESH AIR.
IF BRTHG IS DFCLT, ADMIN OXYG. IF BRTHG HAS (ING 10)
Ingredient Sequence Number: 09
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: ING 9:STOPPED GIVE ARTIFICIAL RESPIRATION. KEEP PERSON WARM,
QUIET AND GET MEDICAL ATTENTION.
Ingredient Sequence Number: 10
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: SPILL PROC:BEEN COMPLETED. STOP SPILL AT SOURCE. PVNT FROM
ENTERING DRAINS, SEWERS, STREAMS/OTHER BODIES OF (ING 12)
Ingredient Sequence Number: 11
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: ING 11:WATER. PVNT FROM SPREADING. IF RUNOFF OCCURS, NOTIFY
AUTH AS REQ. PUMP/VACUUM TRANSFER SPILLED PROD TO (ING 13)
Ingredient Sequence Number: 12
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO

Ingredient: ING 12:CLEAN CNTNRS FOR RECOVERY. ABSORB UNRECOVERABLE PROD.
TRANSFER CONTAM ABSORB, SOIL & OTHER MATLS TO (ING 14)
Ingredient Sequence Number: 13
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: ING 13:CNTNRS FOR DISP. PVNT RUN-OFF TO SEWERS. STREAMS/OTHER
BODIES OF WATER. IF RUN-OFF OCCURS, NOTIFY PROPER (ING 15)
Ingredient Sequence Number: 14
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: ING 14:AUTHORITIES AS REQUIRED, THAT A SPILL HAS OCCURED.
Ingredient Sequence Number: 15
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: OTHER PREC:PRESENCE OF OBVIOUS IGNIT SOURCES, PUBLISHED
"AUTOIGNIT"/"IGNIT" TEMP VALUES CANNOT BE TREATED AS (ING 17)
Ingredient Sequence Number: 16
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: ING 16:SAFE OPERATING TEMPS IN CHEM PROCESSES W/OUT ANALYSIS
OF ACTUAL PROCESS CNDTNS. ANY USE OF PROD IN (ING 18)
Ingredient Sequence Number: 17
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: ING 17:ELEVATED TEMP PROCESSES SHOULD BE THORO EVALUATED TO
ESTABLISH & MAINTAIN SAFE OPERATING CNDTNS. (ING 19)
Ingredient Sequence Number: 18
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: ING 18:HYDROCARBON SOLVS ARE BASICALLY NON-CONDUCTORS OF
ELECTRICITY & CAN BECOME ELECTROSTATICALLY CHARGED (ING 20)
Ingredient Sequence Number: 19
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: ING 19:DURING MIX, FILTERING/PUMPING AT HIGH FLOW RATES. IF
CHARGE REACHES A SUFFICIENTLY HIGH LEVEL, SPKS CAN (ING 21)
Ingredient Sequence Number: 20
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: ING 20:FORM THAT MAY IGNITE VAPORS OF FLAMMABLE LIQUIDS.
Ingredient Sequence Number: 21

NIOSH (RTECS) Number: 9999999ZZ
 OSHA PEL: NOT APPLICABLE
 ACGIH TLV: NOT APPLICABLE

 Proprietary: NO
 Ingredient: RESP PROT:(SEE YOUR INDUS HYGIENIST). ENGINEERING/ADMIN
 CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.
 Ingredient Sequence Number: 22
 NIOSH (RTECS) Number: 9999999ZZ
 OSHA PEL: NOT APPLICABLE
 ACGIH TLV: NOT APPLICABLE

 Proprietary: NO
 Ingredient: PROT GLOVES:SAFETY EQUIPMENT SUPPLIER).
 Ingredient Sequence Number: 23
 NIOSH (RTECS) Number: 9999999ZZ
 OSHA PEL: NOT APPLICABLE
 ACGIH TLV: NOT APPLICABLE

 Proprietary: NO
 Ingredient: EYE PROT:W/OSHA REGS ARE ADVISED; HOWEVER, OSHA REGS ALSO
 PERMIT OTHER TYPE SFTY GLASSES. CONSULT YOUR SFTY (ING 25)
 Ingredient Sequence Number: 24
 NIOSH (RTECS) Number: 9999999ZZ
 OSHA PEL: NOT APPLICABLE
 ACGIH TLV: NOT APPLICABLE

 Proprietary: NO
 Ingredient: ING 24:REPRESENTATIVE.
 Ingredient Sequence Number: 25
 NIOSH (RTECS) Number: 9999999ZZ
 OSHA PEL: NOT APPLICABLE
 ACGIH TLV: NOT APPLICABLE

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Physical/Chemical Characteristics

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Appearance And Odor: NONE SPECIFIED BY MANUFACTURER.
 Boiling Point: ING 1
 Vapor Pressure (MM Hg/70 F): ING 1
 Vapor Density (Air=1): >1.00
 Specific Gravity: 0.73
 Evaporation Rate And Ref: SLOWER THAN ETHER
 Percent Volatiles By Volume: 100.00

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Fire and Explosion Hazard Data

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Flash Point: >35F,>2C
 Lower Explosive Limit: 0.9%
 Extinguishing Media: REGULAR FOAM OR CARBON DIOXIDE OR DRY CHEMICAL.
 Special Fire Fighting Proc: WEAR NIOSH/MSHA APPROVED SCBA & FULL
 PROTECTIVE EQUIPMENT (FP N).
 Unusual Fire And Expl Hazrds: NEVER USE WELDING/CUTTING TORCH ON/NEAR DRUM
 (EVEN EMPTY) BECAUSE PROD (EVEN JUST RESIDUE) CAN IGNITE EXPLOS. ALL FIVE
 GALLON PAILS & LGR METAL CNTNRS (SUPDAT)

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Reactivity Data

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Stability: YES
 Cond To Avoid (Stability): NONE SPECIFIED BY MANUFACTURER.
 Materials To Avoid: AVOID CONTACT WITH STRONG OXIDIZING AGENTS.
 Hazardous Decomp Products: MAY FORM TOXIC MATERIALS; CARBON DIOXIDE AND
 CARBON MONOXIDE, VARIOUS HYDROCARBONS, ETC.
 Hazardous Poly Occur: NO
 Conditions To Avoid (Poly): NOT RELEVANT

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Health Hazard Data

LD50-LC50 Mixture: NONE SPECIFIED BY MANUFACTURER.
 Route Of Entry - Inhalation: YES
 Route Of Entry - Skin: YES
 Route Of Entry - Ingestion: NO
 Health Haz Acute And Chronic: NOTE:TOLUENE APPEARS ON NAVY LISTING OF OCCUP CHEM REPRO HAZS. SEEK CONSULTATION FROM APPROP HLTH PROFESSIONALS
 EYES:EXPOS TO LIQ/VAP MAY CAUSE MILD IRRIT. SYMPS MAY INCLUDE STINGING, TEARING & REDNESS. SKIN:MILD IRRIT. PRLNGD/ (EFTS OF OVEREXP)
 Carcinogenicity - NTP: NO
 Carcinogenicity - IARC: NO
 Carcinogenicity - OSHA: NO
 Explanation Carcinogenicity: NOT RELEVANT
 Signs/Symptoms Of Overexp: HLTH HAZS:RPTD EXPOS MAY DRY SKIN. SYMPS MAY INCLUDE REDNESS, BURNING, DRYING & CRACKING & BURNS. INHAL:EXCESSIVE INHAL OF VAPS CAN CAUSE NASAL & RESP IRRIT, CNS EFTS INCLUDING DIZZ, WEAK, FATG, NAUS, HDCH & POSS UNCON & EVEN DEATH. INGEST:GI IRRIT, NAUS, VOMIT & DIARR. ASPIR OF MATL INTO LUNGS CAN CAUSE CHEM (ING 8)
 Med Cond Aggravated By Exp: NONE SPECIFIED BY MANUFACTURER.
 Emergency/First Aid Proc: SKIN:REMOVE CONTAM CLTHG & LAUNDR BEFORE REUSE. WASH EXPOSED AREA W/SOAP & WATER. IF SYMPS PERSIST, SEEK MED ATTN. EYES:MOVE AWAY FROM EXPOS & INTO FRESH AIR. FLUSH W/CLEAN WATER FOR AT LEAST 15 MIN WHILE HOLDING EYELIDS APART. IF SYMPS PERSIST, SEEK MED ATTN. INGEST:DO NOT INDUCE VOMIT, KEEP PERSON WARM, QUIET, & GET MED ATTN. ASPIR OF MATL INTO LUNGS DUE TO VOMIT CAN CAUSE CHEM PNEUM (ING 9)

Precautions for Safe Handling and Use

Steps If Matl Released/Spill: SM SPILL:ABSORB LIQ ON VERMICULITE, FLOOR ABSORB/OTHER ABSORB MATL. LG SPILL:ELIM ALL IGNIT SOURCES (FLARES, FLAMES INCLUDING PILOT LIGHTS, ELEC SPKS). PERSONS NOT WEARING PROT EQUIP SHOULD BE EXCLUDED FROM AREA OF SPILL UNTIL CLEAN-UP HAS (ING 11)
 Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.
 Waste Disposal Method: SMALL SPILL:DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS. LARGE SPILL:DISPOSE OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
 Precautions-Handling/Storing: CONTAINERS OF MATERIAL MAY BE HAZARDOUS WHEN EMPTIED, SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID).
 Other Precautions: ALL HAZ PREC GIVEN IN THIS DATASHEET MUST BE OBSERVED. WARNING!!! SUDDEN RELS OF HOT ORGANIC CHEM VAPS/MISTS FROM PROCESS EQUIP OPERATING AT ELEVATED TEMPS & PRESS/SUDDEN INGRESS OF AIR INTO VACUUM EQUIP MAY RSLT IN IGNITS W/OUT (ING 16)

Control Measures

Respiratory Protection: IF WORKPLACE EXPOS LIM OF PROD/ANY COMPONENT IS EXCEEDED , A NIOSH/MSHA APPRVD AIR SUPPLIED RESP IS ADVISED IN ABSENCE OF PROPER ENVIRON CONTROL. OSHA REGS ALSO PERMIT OTHER NIOSH/MSHA RESPS (NEG-PRESS TYPE) UNDER SPECIFIED CNDTNS (ING 21)
 Ventilation: PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).
 Protective Gloves: WEAR RESIST GLOVES (CONSULT YOUR(ING 22)
 Eye Protection: CHEM SPLASH GOGGS IN COMPLIANCE (ING 23)
 Other Protective Equipment: TO PREVENT REPEATED OR PROLONGED SKIN CONTACT, WEAR IMPERVIOUS CLOTHING AND BOOTS. EYEWASH FNTN & DELUGE SHWR (FP N).
 Work Hygienic Practices: NONE SPECIFIED BY MANUFACTURER.
 Suppl. Safety & Health Data: EXPLO HAZ:INCLUDING TANK CARS & TANK TRUCKS SHOULD BE GROUNDED &/OR BONDED WHEN MATL IS TRANSFERRED. MATL IS HIGHLY VOLATILE & READILY GIVES OFF VAPS WHICH MAY TRAVEL ALONG GROUND/BE MOVED BY VENT & IGNITED BY PILOT LIGHTS, OTHER FLAMES, SPKS, HEATERS, SMKG, ELEC MOTORS, STATIC DISCHARGE,/OTHER IGNIT SOURCES (ING 7)

Transportation Data

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Disposal Data
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Label Data
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Label Required: YES
Technical Review Date: 30DEC94
Label Status: G
Common Name: ZIPPO BLEND 1
Chronic Hazard: YES
Signal Word: DANGER!
Acute Health Hazard-Moderate: X
Contact Hazard-Moderate: X
Fire Hazard-Severe: X
Reactivity Hazard-None: X
Special Hazard Precautions: FLAMMABLE LIQUID. ACUTE:EYES:EXPOSURE TO LIQUID OR VAPOR MAY CAUSE MILD IRRITATION. SYMPTOMS MAY INCLUDE STINGING, TEARING AND REDNESS. SKIN:MILD IRRITATION. PROLONGED OR REPEATED EXPOSURE MAY DRY CAUSING REDNESS, BURNING, CRACKING AND BURNS. INHAL:CAN CAUSE NASAL AND RESPIRATORY IRRITATION, CNS EFFECTS INCLUDING DIZZINESS, WEAKNESS, GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING AND DIARRHEA. ASPIRATION HAZARD. CHRONIC:CONTAINS TOLUENE WHICH APPEARS ON THE NAVY OCCUPATIONAL CHEMICAL REPRODUCTIVE HAZARDS LIST (FP N).
Protect Eye: Y
Protect Skin: Y
Protect Respiratory: Y
Label Name: ZIPPO MFG CO
Label Street: CONGRESS ST EXTENTION
Label City: BRADFORDE
Label State: PA
Label Zip Code: 16701
Label Country: US
Label Emergency Number: 814-362-4541