Product ID: AEROSHELL PERFORMANCE ADDITIVE 101 MSDS Date:01/05/1998 FSC:6850 NIIN:01-432-7761 MSDS Number: CHQPQ === Responsible Party === Company Name: SHELL-MEX AVIATION LTD Address:SHELL-MEX HOUSE City:STRAND LONDON Country:UK Info Phone Num:01715465000/+44-(0)171-546-2094 Emergenc y Phone Num:+44-(0)171-257-5515 Resp. Party Other MSDS Num.:DMC05100 CAGE:KA832 === Contractor Identification === Company Name: SHELL AVIATION LTD Address:SHELL-MEX HOUSE, STRAND Box:City:LONDON WC2R 0ZA Country:UK Phone:44-(0)171-546-2094 Contract Num:SP0450-00-M-D028 CAGE:KA832 Company Name: SHELL AVIATION LTD Address:SHELL-MEX HOUSE, STRAND Box:City:LONDON WC2R 0ZA Country:UK Phone:44-(0)171-546-2094 Contract Num:SP0450-00-M-D912 CAGE:KA832 Company Name: SHELL AVIATION LTD Address:SHELL-MEX HOUS E, STRAND Box:City:LONDON WC2R 0ZA Country:UK Phone:44-(0)171-546-2094 Contract Num:SP0450-00-M-D914 CAGE:KA832 Company Name: SHELL AVIATION LTD Address:SHELL-MEX HOUSE, STRAND Box:City:LONDON WC2R 0ZA Country:UK Phone:44-(0)171-546-2094 Contract Num:SP0450-01-M-D133 CAGE:KA832 Company Name: SHELL AVIATION LTD Address:SHELL-MEX HOUSE, STRAND Box:City:LONDON WC2R 0ZA Country:UK Phone:44-(0)171-546-2094 Contract Num:SP0450-99-M-NH63 CAGE:KA832 Company Name: SHELL AVIATION LTD Address:SHELL-MEX HOUSE.

STRAND Box:City:LONDON WC2R 0ZA Country:UK Phone:44-(0)171-546-2094 Contract Num:SP0450-99-M-NK40 CAGE:KA832 Company Name:SHELL AVIATION LTD Address:SHELL-MEX HOUSE, STRAND Box:City:LONDON WC2R 0ZA Country:UK Phone:44-(0)171-546-2094 Contract Num:SP0450-99-MNF22 CAGE:KA832

Ingred Name:MINERAL OIL, PETROLEUM DISTILLATE, SOLVENT DEWAXED (SEVERE), HEAVY PARAFFINIC CAS:64742-65-0 RTECS #:PY8038501 Minumum % Wt:1. Maxumum % W t:5. Other REC Limits:NONE RECOMMENDED OSHA PEL:5 MG/M3 AS OIL MIST ACGIH TLV:5 MG/M3 AS OIL MIST

Ingred Name:HEAVY AROMATIC NAPHTHA (SOLVENT NAPHTHA) CAS:64742-94-5 RTECS #:WF3100000 Minumum % Wt:50. Maxumum % Wt:80. Other REC Limits:NONE RECOMMENDED OSHA PEL:5 MG/M3 AS OIL MIST ACGIH TLV:5 MG/M3 AS OIL MIST

Ingred Name:NAPHTHALENE (SARA 313) (CERCLA) CAS:91-20-3 RTECS #:QJ0525000 Minumum % Wt:5. Maxumum % Wt:10. Other REC Limits:NONE RECOMMENDED OSHA PEL:10 PPM ACGIH TLV:10 PPM/15 STEL; 9596 EPA Rpt Qty:100 LBS DOT Rpt Qty:100 LBS

Ingred Name:BUTYLATED HYDROXTOLUENE/2,6-DI-TERT-BUTYL-P-CRESOL CAS:128-37-0 RTECS #:GO7875000 Minumum % Wt:5. Maxumum % Wt:10. Other REC Limits:NONE RECOMMENDED OSHA PEL:10 MG/M3 ACGIH TLV:10 MG/M3; 9596

Ingred Name:DIMETHYL SULFOXIDE (DMSO EXTRACT BY IP346 FROM INGRED #1) CAS:67-68-5 RTECS #:PV6210000 &It; Wt:3. Other REC Limits:NONE RECOMMENDED

LD50 LC50 Mixture:NOT SPECIFIED BY MA NUFACTURER Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO Health Hazards Acute and Chronic: EXCESSIVE DERM EXPOSURE CAUSES SKIN DEFATTING AND DRYING. INHALATION OF VAPORS MAY CAUSE RESPIRATORY TRACT IRRITATION. SPLASES INTO EYE MAY CAUSE IRRITATION AND CONJUNCTIVITIS. IF INGESTED CAN LEAD TO MOUTH/THROAT/DIGESTIVE TRACT IRRITITATION. ASPIRATION INTO LUNGS MAY OCCUR DIRECTLY OR FOLLOWING INGESTION. THIS CAN CAUSE C HEMICAL PNEUMONITIS WHICH CAN BE FATAL. Explanation of Carcinogenicity:NONE SPECIFIED BY MFG'S MSDS. Effects of Overexposure: PROLONGED EXPOSURE TO VAPOUR/MIST CONCENTRATIONS ABOVE THE RECOMMENDED OCCUPATIONAL EXPOSURE STANDARD MAY CAUSE; HEADACHE, DIZZINESS, NAUSEA, IRRITATION OF EYES, UPPER RESPIRATORY TRACT, MOUTH AND DI GESTIVE TRACT, ASPHYXIATION, UNCONSCIOUSNESS AND EVEN DEATH. VOMITING, CONVULSIONS AND COMA. ASPHYXIATION, INTO THE LUNGS MAY OCCUR DIRECTLY OR FOLLOW

ING INGESTION. THIS CAN CAUSE CHEMICAL PNEUMONITIS WHICH MAY BE FATAL.

First Aid:INHAL:MOVE TO FRESH AIR.BREATH BUT UNCONSC PLACE IN RECOVERY POSITION.BREATH SSTOP APPLY ART RESP.HEARTBEAT ABSENT GIVE EXTERNAL CARDIAC COMPRESSION.MONITOR BREATH/PULSE.GET MED ATTN IMMED.SKIN:WASH W /H2O & SOAP IF AVAIL.CONTAM CLOTH MUST BE REMOVED ASAP.EYE: FLUSH W/H2O.PERSISTENT IRRIT OCCURS GET MED ATTN.INGEST:DONT D

ELAY.DONT INDUCE VOMIT. PROTECT AIRWAY IF VOMIT BEGINS.GIVE NOTHING BY MOUTH.B REATH BUT UNCONSC PLACE IN RECOVERY POSITION.BREATH STOP APPLY ART RESP.GET MEDATTN IMMED.ADVICE TO DR:TREAT SYMPTOMATICALLY.DIAGNOSIS OF INGEST PROD BY CHARACTER ODOUR ON BREATH,HISTORY OF EVENTS.ING EST CONSIDER (SEE OTHER INFOR)

Flash Point Method: PMCC

Flash Point:=74.C, 165.2F

Extinguishing Media: FOAM AND DRY CHEMICAL POWDER

. CARBON DIOXIDE, SAND

OR EARTH MAY BE USED FOR SMALL FIRES ONLY. WATER IN A JET. USE OF HALON EXTINGUISHERS SHOULD BE AVOIDED FOR ENVIRONMENTAL REASONS.

Fire Fighting Procedures: PROPER PROTECTIVE EQUIPMENT INCLUDING BREATHING APPARATUS MUST BE WORN WHEN APPROACHING A FIRE IN A CONFINED SPACE. KEEP ADJACENT CONTAINERS COOL BY SPRAYING WITH WATER.

Unusual Fire/Explosion Hazard:COMBUSTION PRODUCTS MAY INCLUDE:CARBON MONOXIDE, OXIDES OF NITROGEN, OXIDES OF SULPHUR, OXIDES OF

PHOSPHORUS, UNIDENTIFIED ORGANIC AND INORGANIC COMPOUNDS. NOT CLASSIFIED AS FLAMMABLE BUT WILL BURN.

Spill Release Procedures:REMOVE ALL IGN SOURCES,EVACUATE PERSONNEL.DONT BREATH VAP/MIST/AERO.VENTI AREA WELL. AVOID COTNACT W/SKIN/EYE/CLOTH.TAKE IMMED CONTAM CLOTH.SMALL: ABSORB/CONTAIN LIQ W/SAND OR EARTH/SPILL CNTRL MATL.S HOVEL INTO SUITABLE,CLEARLY MARKED CNTNRFOR SUBSEQUENT SAFE DISPO IAW LOC REGS

.LG:PREVENT FROM SPREADING BY MAKING BARRIER W/SAND/EARTH/OTHER CONTAIN MATL.RECLAIM LIQ DIRECTLY/IN(SEE OTHER INFO) Neutralizing Agent:NOT RELEVANT

Handling and Storage Precautions:KEEP ONLY IN ORIGINAL CNTNR.KEEP IN COOL,DRY WELL VENTI PLACE.KEEP AWAY FRM SOURCES OF HEAT OR IGN.STORAGE/HNDL TEMPS:AMBIENT.WHEN USING DONT EAT/DRINK/SMOKE. ONLY USE IN WELL VENTI AREA.HNDLG PROD IN DRMS/TOTES SAFETY FOOT

WEAR SHOULD BE WORN & PROPER HNDLG EQPMT SHOULD BE USED.PREVENT SPILLAGES.

Other Precautions: ELECTROSTATIC CHARGES MAY BE GENERATED DURING PUMPING. ENSURE ELECTRICAL CONTINUITY BY BONDING ALL EQUIPMENT. NEVER SIPHON BY MOUTH.

Respiratory Protection:NOT NORMALLY REQUIRED. IF RISK OF INHILATION WEAR HALF MASK RESPIRATOR WITH ORGANIC VAPOR CARTRIDGE AND BUILT-IN PARTICULATE FILTER NPF 20 (GAS ONLY).

Protective

Gloves: PVC OR NITRILE RUBBER

Eye Protection: CHEMICAL MONOGOGGLES IF SPLASHES LIKELY TO OCCUR IN HIGH PRESSURE APPLICATIONS.

Other Protective Equipment:WEAR OVERALLS TO MINIMIZE CONTAMINATION OF PERSONAL CLOTHING. SAFETY SHOES OR BOOTS-CHEMICAL RESISTANT. IF SPLASHES ARE LIKELY TO OCCUR WEAR A PVC APRON. MINIMIZE ALL FORMS OF SKIN CONTACT.

Work Hygienic Practices: LAUNDRY CONTAM CLOTH BEFORE REUSE. LAUNDER OVERALLS & UNDERGAARMENTS REGULARLY. WASH HANDS BEFORE EATING, DRINK

ING, SMOKING AND USING THE TOILET.

Supplemental Safety and Health

HCC:V6 NRC/State Lic Num:NOT RELEVANT Vapor Density:>1(AIR=1) Evaporation Rate & amp; Reference:>1 (ETHER=1) Solubility in Water:2000 MG/KG(EST. VALUE).ACUTE TOXICITY-DERM:LD50 >2000 MG/KG(EST. VALUE).PROD HAS NOT BEEN EVALUATED IN LONG-TERM CHRONIC EXPO TESTS.REPEATED SKIN EXPO EXPECTED TO CAUSE MODE RATE TO SEVERE IRRIT.REPEATED MIST INHAL EXPE CTED TO CAUSE RESP TRACT IRRIT.TOXICOLOGICAL DATA HAVE NOT BEEN DETERMINED SPECIFICALLY FOR PRODUCT.INFO GIVEN IS BASED ON KNOWLEDGE OF COMPO & TOXICOLOGY OF SIMILAR PRODUCTS.NOT EXPECTED TO BE SKIN SENSITIZER.EYE:EXPECTED TO BE SLIGHTLY IRRIT.SKIN IRRITANT.

Ecological:NOT READILY BIODEGRADABLE. HAS THE POTENTIAL TO BIOACCUMULATE. EXPECTED TO BE SLIGHTLY TOXIC TO AQUATIC ORGANISMS. LARGE VOLUMES MAY P ENETRATE SOIL AND COULD CONTAMINATE GROUNDWATER.

Waste Disposal Methods:WASTE ARISING FROM A SPILLAGE SHOULD BE DISPOSED OF IN ACCORDANCE WITH PREVAILING REGULATIONS, PREFERABLY TO A RECOGNISED COLLECTOR OR CONTRACTOR. THE COMPETENCE OF THE CONTRACTOR SHOULD BE ESTABLISHE D BEFOREHAND. DO NOT DISPOSE INTO THE ENVIRONMENT, IN DRAINS OR IN WATER COURSES. ALL CONTAINERS SHO ULD BE EMPTIED AND RETURNED TO THE S UPPLIER.

Transport Information:NOT DANGEROUS FOR CONVEYANCE UNDER UN, IMO, ADR/RID AND IATA/ICAO CODES.

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