MATERIAL SAFETY DATA SHEET
SHELL MSDS: 7593-03 T 06/15/93
SHELL MINERAL SPIRITS 200 HT

TELEPHONE NUMBER:
24 HOUR EMERGENCY ASSISTANCE
SHELL: 713-473-9461
CHEMTEC: 800-424-9300

MANUFACTURER'S NAME AND ADDRESS
SHELL OIL COMPANY
PRODUCT SAFETY & COMPLIANCE
P.O. BOX 4320
HOUSTON, TX 77210

SECTION I NAME
PRODUCT: SHELL MINERAL SPIRITS 200 HT
CHEM NAME: SOLVENT NAPHTHA (PETROLEUM), MEDIUM ALIPHATIC
CHEM FAMILY: HYDROCARBON SOLVENT
SHELL CODE: 83014

HEALTH HAZARD: 2  FIRE HAZARD: 2  REACTIVITY: 0

SECTION II-A INGREDIENTS

<table>
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<th>NO.</th>
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<th>CAS NO.</th>
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*A COMPLEX COMBINATION OF PREDOMINANTLY C9-C12 HYDROCARBONS; EXACT COMPOSITION WILL VARY. HMIS HAZARD RATING: HEALTH 1 FIRE 2 REACTIVITY 0

SECTION II-B ACUTE TOXICITY DATA

<table>
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<tr>
<th>NO.</th>
<th>ACUTE ORAL LD50</th>
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<tr>
<td>**</td>
<td>&gt;25 ML/KG (RAT)</td>
<td>&gt;4 ML/KG (RABBIT)</td>
<td>&gt;700 PPM/4H (RAT)</td>
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**BASED ON EITHER PRODUCT OR ESSENTIALLY SIMILAR PRODUCT TESTING.

SECTION III HEALTH INFORMATION


EYE CONTACT:
LIQUID IS PRACTICALLY NONIRRITATING TO THE EYES.

SKIN CONTACT:
LIQUID IS SLIGHTLY IRRITATING TO THE SKIN. PRLONGED OR REPEATED LIQUID CONTACT CAN RESULT IN DEFATTING AND DRYING OF THE SKIN WHICHMAY RESULT IN SKIN IRRITATION AND DERMATITIS.

INHALATION:
VAPORS MAY CAUSE IRRITATION TO NOSE, THROAT, AND RESPIRATORY TRACT. HIGH VAPOR CONCENTRATIONS MAY RESULT IN CNS DEPRESSION.

INGESTION:
INGESTION OF PRODUCT MAY RESULT IN VOMITING; ASPIRATION (BREATHING) OF VOMITUS INTO THE LUNGS MUST BE AVOIDED AS EVEN SMALL QUANTITIES MAY RESULT IN ASPIRATION PNEUMONITIS.

SIGNS AND SYMPTOMS:
IRRITATION AS NOTED ABOVE. EARLY TO MODERATE CNS (CENTRAL NERVOUS SYSTEM) DEPRESSION MAY BE EVIDENCED BY GIDDINESS, HEADACHE, DIZZINESS AND NAUSEA; IN EXTREME CASES, UNCONSCIOUSNESS AND DEATH MAY OCCUR. ASPIRATION PNEUMONITIS MAY BE EVIDENCED BY COUGHING, LABOREDBREATHING AND CYANOSIS (BLUISH SKIN); IN SEVERE CASES DEATH MAY OCCUR.

AGGRAVATED MEDICAL CONDITIONS:
PREEXISTING EYE, SKIN, AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

OTHER HEALTH EFFECTS:
NONE
FOR A SPANISH TRANSLATION OF THIS MSDS, CALL 1-800-240-MSDS.

SECTION IV OCCUPATIONAL EXPOSURE LIMITS

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<th>COMP NO.</th>
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*RECOMMEND THAT LIMITS FOR STODDARD SOLVENT BE USED AS A GUIDE.

SECTION V EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT:
PLUSH EYES WITH PLENTY OF WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION.

SKIN CONTACT:
REMOVE CONTAMINATED CLOTHING/SHOES. PLUSH SKIN WITH WATER. FOLLOW BY WASHING WITH SOAP AND WATER. IF IRRITATION OCCURS, GET MEDICAL ATTENTION. DO NOT REUSE CLOTHING UNTIL CLEANED.

INHALATION:
REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE
ARTIFICIAL RESPIRATION IF NOT BREATHING.

INGESTION:
DO NOT INDUCE VOMITING. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION OF LIQUID INTO THE LUNGS. GET MEDICAL ATTENTION.*

NOTE TO PHYSICIAN:
*IF MORE THAN 2.0 ML PER KG HAS BEEN INGESTED AND VOMITING HAS NOT OCCURRED, EMESIS SHOULD BE INDUCED WITH SUPERVISION. KEEP VICTIM'S HEAD BELOW HIPS TO PREVENT ASPIRATION. IF SYMPTOMS SUCH AS LOSS OF GAG REFLEX, CONVULSIONS OR UNCONSCIOUSNESS OCCUR BEFORE EMESIS, GASTRIC LAVAGE USING A CUFFED ENDOTRACHEAL TUBE SHOULD BE CONSIDERED.

SECTION VI SUPPLEMENTAL HEALTH INFORMATION

MALE RATS EXPOSED FOR 90 DAYS BY INHALATION TO VAPORS OF SIMILAR SOLVENTS SHOWED EVIDENCE OF KIDNEY DAMAGE. THE RELEVANCE OF THIS EFFECT TO MAN IS UNKNOWN. IN ONE OF THE STUDIES A LOW GRADE ANEMIA WAS ALSO OBSERVED.

SECTION VII PHYSICAL DATA

BOILING POINT (DEG F): SPECIFIC GRAVITY (H2O = 1): VAPOR PRESSURE (MM HG):
324-402 0.78 <5 @ 100 DEG F

MELTING POINT (DEG F): SOLUBILITY IN WATER: VAPOR DENSITY (AIR = 1):
NOT AVAILABLE NEGLIGIBLE 5.3

EVAPORATION RATE (NORMAL BUTYL ACETATE = 1): 0.07

APPEARANCE AND ODOR:
LIGHT COLORED LIQUID. HYDROCARBON ODOR.

SECTION VIII FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD: 111 DEG F (TCC)

FLAMMABLE LIMITS/PERCENT VOLUME IN AIR: LOWER: 1 UPPER: 7

EXTINGUISHING MEDIA:
USE WATER FOG, FOAM, DRY CHEMICAL OR CO2. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT WILL FLOAT AND CAN BE REIGNITED ON SURFACE OF WATER.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS:
CAUTION. COMBUSTIBLE. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND RUBBER BOOTS), INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE
EXPOSED CONTAINERS WITH WATER.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**
CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOR PRESSURE BUILDUP WHICH COULD RESULT IN CONTAINER RUPTURE. CONTAINER AREAS EXPOSED TO DIRECT FLAME CONTACT SHOULD BE COOLED WITH LARGE QUANTITIES OF WATER AS NEEDED TO PREVENT WEAKENING OF CONTAINER STRUCTURE.

**SECTION IX** REACTIVITY

**STABILITY:** STABLE  
**HAZARDOUS POLYMERIZATION:** WILL NOT OCCUR

**CONDITIONS AND MATERIALS TO AVOID:**
AVOID HEAT, FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS.

**HAZARDOUS DECOMPOSITION PRODUCTS:**
CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

**SECTION X** EMPLOYEE PROTECTION

**RESPIRATORY PROTECTION:**
AVOID PROLONGED OR REPEATED BREATHING OF VAPORS. IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SEC. IV) USE A NIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134 USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

**PROTECTIVE CLOTHING**
AVOID CONTACT WITH EYES. WEAR SAFETY GLASSES OR GOGGLES AS APPROPRIATE. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. WEAR CHEMICAL-RESISTANT GLOVES AND OTHER CLOTHING AS REQUIRED TO MINIMIZE CONTACT. TEST DATA FROM PUBLISHED LITERATURE AND/OR GLOVE AND CLOTHING MANUFACTURERS INDICATE THE*

**ADDITIONAL PROTECTIVE MEASURES:**
*BEST PROTECTION IS PROVIDED BY NITRILE MATERIAL. USE EXPLOSION-PROOF VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS. AIR-DRY CONTAMINATED CLOTHING IN A WELL VENTILATED AREA THEN LAUNDER BEFORE REUSING.

**SECTION XI** ENVIRONMENTAL PROTECTION

**SPILL OR LEAK PROCEDURES:**
CAUTION. COMBUSTIBLE. *** LARGE SPILLS *** ELIMINATE POTENTIAL SOURCES OF IGNITION. WEAR APPROPRIATE RESPIRATOR AND OTHER PROTECTIVE CLOTHING. SHUT OFF SOURCE OF LEAK ONLY IF SAFE TO DO SO. DIKE AND CONTAIN. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND, OR OTHER SUITABLE MATERIAL; PLACE IN NON-LEAKING CONTAINERS AND SEAL TIGHTLY FOR PROPER DISPOSAL. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE; DISPOSE OF FLUSH SOLUTION AS ABOVE. *** SMALL SPILLS *** TAKE UP WITH AN ABSORBENT MATERIAL AND PLACE IN NON-LEAKING CONTAINERS FOR PROPER DISPOSAL.

**SECTION XII** SPECIAL PRECAUTIONS
KEEP LIQUID AND VAPOR AWAY FROM HEAT, SPARKS AND FLAME. SURFACES THAT ARE
SUFFICIENTLY HOT MAY IGNITE EVEN LIQUID PRODUCT IN THE ABSENCE OF SPARKS OR FLAME.
EXTINGUISH PILOT LIGHTS, CIGARETTES AND TURN OFF OTHER SOURCES OF ILLNITATION PRIOR TO
USE AND UNTIL ALL VAPORS ARE GONE. VAPORS MAY ACCUMULATE AND TRAVEL TO IGNITION
SOURCES DISTANT FROM THE HANDLING SITE; FLASH-FIRE CAN RESULT. KEEP CONTAINERS
CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION.
CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN EXPLOSIVE VAPORS. DO
NOT CUT, DRILL, GRIND, WELD OR PERFORM SIMILAR OPERATIONS ON OR NEAR CONTAINERS.
STATIC ELECTRICITY MAY ACCUMULATE AND CREATE A FIRE HAZARD. GROUND FIXED
EQUIPMENT. BOND AND GROUND TRANSFER CONTAINERS AND EQUIPMENT.

SECTION XIII  TRANSPORTATION REQUIREMENTS

DEPARTMENT OF TRANSPORTATION CLASSIFICATION:
CLASS 3 (FLAMMABLE LIQUIDS), III

DOT PROPER SHIPPING NAME:
PETROLEUM DISTILLATES, N.O.S. (PETROLEUM NAPHTHA)

OTHER REQUIREMENTS:
UN1268, GUIDE 128

SECTION XIV  OTHER REGULATORY CONTROLS

THIS PRODUCT IS LISTED ON THE EPA/TSCA INVENTORY OF CHEMICAL SUBSTANCES
PROTECTION OF STRATOSPHERIC OZONE (PURSUANT TO SECTION 611 OF THE CLEAN AIR ACT
AMENDMENTS OF 1990): PER 40 CFR PART 82, THIS PRODUCT DOES NOT CONTAIN NOR WAS
IT DIRECTLY MANUFACTURED WITH ANY CLASS I OR CLASS II OZONE DEPLETING SUBSTANCES.
IN ACCORDANCE WITH SARA TITLE III, SECTION 313, THE ENVIRONMENTAL DATA SHEET (EDS)
SHOULD ALWAYS BE COPIED AND SENT WITH THE MSDS.

SECTION XV  STATE REGULATORY INFORMATION

STATE LISTED COMPONENT  CAS NO.  PERCENT  STATE CODE

BASED ON INFORMATION AVAILABLE TO SHELL, THIS PRODUCT DOES NOT CONTAIN ANY CHEMICAL
SUBSTANCE REGULATED BY A SPECIFIC STATE LIST.

SECTION XVI  SPECIAL NOTES

THIS MSDS REVISION HAS CHANGES IN SECTION XIII. A SPANISH TRANSLATION OF THIS MSDS
MAY BE OBTAINED BY CALLING 1-800-240-MSDS.

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US
AND IS BELIEVED TO BE CORRECT. HOWEVER, SHELL MAKES NO WARRANTY,
EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS
TO BE OBTAINED FROM THE USE THEREOF. SHELL ASSUMES NO RESPONSIBILITY
FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.
WE ARE PROVIDING OUR MOST RECENT MATERIAL SAFETY DATA SHEET AND/OR ENVIRONMENTAL DATA SHEET. IF YOU WISH TO RECEIVE UPDATES TO THIS INFORMATION, PLEASE CALL SHELL'S GENERAL MSDS ASSISTANCE LINE (713-241-4819) TO ENSURE THAT YOU ARE ADDED TO SHELL'S REGULAR MSDS DISTRIBUTION SYSTEM.

BE SAFE. READ OUR PRODUCT SAFETY INFORMATION...AND PASS IT ON. (PRODUCT LIABILITY LAW REQUIRES IT)

SHELL OIL COMPANY
PRODUCT SAFETY AND COMPLIANCE
P. O. BOX 4320
HOUSTON, TX. 77210

ENVIRONMENTAL DATA SHEET

SHELL EDS: 7593-01 06/13/89

SHELL MINERAL SPIRITS 200 HT

TELEPHONE NUMBER:
24 HOUR EMERGENCY ASSISTANCE
SHELL: 713-473-9461
CHEMTREC: 800-424-9300

GENERAL MSDS ASSISTANCE
SHELL: 713-241-4819

MANUFACTURER'S NAME AND ADDRESS
SHELL OIL COMPANY
PRODUCT SAFETY & COMPLIANCE
P. O. BOX 4320
HOUSTON, TX 77210

PRODUCT CODE: 83014

SECTION I PRODUCT COMPOSITION

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SECTION II SARA TITLE III INFORMATION

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SECTION III ENVIRONMENTAL RELEASE INFORMATION

UNDER EPA-CWA, THIS PRODUCT IS CLASSIFIED AS AN OIL UNDER SECTION 311. SPILLS INTO OR LEADING TO SURFACE WATERS THAT CAUSE A SHEEN MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER, 800-424-8802.

SECTION IV RCRA INFORMATION

UNDER EPA - RCRA (40 CFR 261.21), IF THIS PRODUCT BECOMES A WASTE MATERIAL, IT WOULD BE IGNITABLE HAZARDOUS WASTE, HAZARDOUS WASTE NUMBER D001. REFER TO LATEST EPA OR STATE REGULATIONS REGARDING PROPER DISPOSAL.

DATE PREPARED: 06/13/89 SHELL OIL COMPANY
P.O. BOX 4320 HOUSTON, TX  77210

FOR ADDITIONAL INFORMATION ON THIS ENVIRONMENTAL DATA PLEASE CALL (713) 241-2252

FOR EMERGENCY ASSISTANCE PLEASE CALL
SHELL:  (713) 473-9461
CHEMTREC:  (800) 424-9300