

PHILLIPS CHEMICAL COMPANY/ A DIV OF PHILLIPS PETROLEUM CO -- N-HEPTANE, PRIMARY REFERENCE FUEL (PRF) -- 6810-00-097-4159

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

Product ID:N-HEPTANE, PRIMARY REFERENCE FUEL (PRF)

MSDS Date:05/31/1999

FSC:6810

NIIN:00-097-4159

Status Code:A

MSDS Number: CKTQP

=== Responsible Party ===

Company Name:PHILLIPS CHEMICAL COMPANY/ A DIV OF PHILLIPS PETROLEUM CO

Address:UNK

Cit

y:BARTLESVILLE

State:OK

ZIP:74004

Country:US

Info Phone Num:918-661-9091 OR 918-661-7297

Emergency Phone Num:918-661-8118

CAGE:TO570

=== Contractor Identification ===

Company Name:PHILLIPS 66 CO,PHILTEX PLANT

CAGE:6T514

Company Name:PHILLIPS CHEMICAL COMPANY/ A DIV OF PHILLIPS PETROLEUM CO

Address:UNK

Box:City:BARTLESVILLE

State:OK

ZIP:74004

Country:US

Phone:918-661-9091 OR 918-661-7297

Contract Num:SP0411-01-M-E344

CAGE:TO570

Company Name:PHOENIX INDUSTRIES INC

Address:1519 CHAMBERLAYNE PARKWA

Y

Box:City:RICHMOND

State:VA

ZIP:23222

Country:US

Phone:804-264-5183/FAX: 264-5535

Contract Num:SP0450-00-M-SK28

CAGE:0YED2

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

Ingred Name:N-HEPTANE

CAS:142-82-5

RTECS #:MI7700000

= Wt:100.

OSHA PEL:500 PPM

ACGIH TLV:400 PPM

ACGIH STEL:2050 MG/M3;500 PPM

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

Health Hazards Acute and Chronic:ACUTE- EYE: MAY CAUSE MILD IRRITATION.

NG, ESPECIALLY AFTER PROLONGED

&DIRECT CONTACT WITH THE LIQUID. INHALATION: MAY CAUSE IRRITATION TO THE MUCOUS MEMBRANES OF THE RESPIRATORY TRACT, NAUSEA, LOSS OF APPETITE, LASSITUDE, LIGHT-HEADEDNESS, GIDDINESS, DIZZINESS & INCOORDINATION. RESPIRATORY ARREST, CONVULSIONS, SEMI-CONSCIOUSNESS OR UNCONSCIOUSNESS MAY RESULT FROM EXTREME EXPOSURE. INGESTION: MAY CAUSE WEAKNESS & GASTROINTESTINAL TRACT IRRITATION. IF SWALLOWED, MAY BE ASPIRATED RESULTING IN INFLAMMATION

& POSSIBLE

FLUID ACCUMULATION IN THE LUNGS. SUBCHRONIC & CHRONIC-NO KNOWN APPLICABLE INFORMATION.

Effects of Overexposure:ACUTE- EYE: MILD IRRITATION. SKIN: BURNING& ITCHING, ESPECIALLY AFTER PROLONGED &DIRECT CONTACT WITH THE LIQUID. INHALATION: IRRITATION TO THE MUCOUS MEMBRANES OF THE RESPIRATORY TRACT, NAUSEA, LOSS OF APPETITE, LASSITUDE, LIGHT-HEADEDNESS, GIDDINESS, DIZZINESS & INCOORDINATION. RESPIRATORY ARREST, CONVULSIONS, SEMI-CONSCIOUSNESS OR UNCONSC

IOUSNESS MAY RESULT FROM EXTREME EXPOSURE. INGESTION: MAY CAUSE WEAKNESS & GASTROINTESTINAL TRACT IRRITATION. IF SWALLOWED, MAY BE ASPIRATED RESULTING IN INFLAMMATION & POSSIBLE FLUID ACCUMULATION IN THE LUNGS.

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

First Aid:EYE: FLUSH EYES WITH RUNNING WATER FOR AT LEAST FIFTEEN MINUTES. IF IRRITATION OR ADVERSE SYMPTOMS DEVELOP, SEEK MEDICAL ATTENTION. SKIN: WASH SKIN WITH SOAP AND WATER FOR AT LEAST FIFTEEN

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MINUTES. IF IRRITATION OR ADVERSE SYMPTOMS DEVELOP, SEEK MEDICAL ATTENTION. INHALATION: REMOVE FROM EXPOSURE. IF BREATHING IS DIFFICULT, GIVE OXYGEN. IF BREATHING CEASES, ADMINISTER ARTIFICIAL RESPIRATION FOLLOWED BY OXYGEN. SEEK IMMEDIATE MEDICAL ATTENTION. INGESTION: DO NOT INDUCE VOMITING. SEEK MEDICAL ATTENTION.

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

Flash Point Method:TCC

Flash Point:=-3.7C, 25.F

(TCC, ASTM D56)

Lower Limits:1.0

Upper

Limits:7.0

Extinguishing Media:DRY CHEMICAL, FOAM OR CARBON DIOXIDE (CO2).

Fire Fighting Procedures:EVACUATE AREA OF ALL UNNECESSARY PERSONNEL.

SHUT OFF SOURCE, IF POSSIBLE. USE SCBA & OTHER PROTECTIVE EQUIPMENT &/OR GARMENTS IF CONDITIONS WARRANT. WATER FOG OR SPRAY MAY BE USED TO COOL EXPOSED CONTAINERS & EQUIPMENT. DO NOT SPRAY WATER DIRECTLY ON FIRE, PRODUCT WILL FLOAT & COULD BE REIGNITED ON SURFACE OF WATER.

Unusual Fire/Explosion Hazard:CARBON OXIDES FORMED WHEN BURNED

D. HIGHLY

FLAMMABLE VAPORS WHICH ARE HEAVIER THAN AIR MAY ACCUMULATE IN LOW AREAS AND/OR SPREAD ALONG GROUND AWAY FROM HANDLING SITE.

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

Spill Release Procedures:EVACUATE AREA OF ALL UNNECESSARY PERSONNEL. WEAR PROTECTIVE EQUIPMENT AND/OR GARMENTS IF EXPOSURE CONDITIONS WARRANT. SHUT OFF SOURCE, IF POSSIBLE AND CONTAIN SPILL. PROTECT FROM IGNITION. KEEP OUT OF WATER SOURCES AND SEWERS. ABSORB IN DRY, INERT MATERIAL. TRANSFER TO DISPOSAL DRUMS USING NON-SPARKING EQUIPMENT.

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

Handling and Storage Precautions:DO NOT SWALLOW, MAY BE ASPIRATED INTO LUNGS. AVOID CONTACT WITH EYES, SKIN OR CLOTHING. AVOID BREATHING VAPORS, MIST, FUME OR DUST. WEAR PROTECTIVE EQUIPMENT AND/OR GARMENTS IF EXPOSURE CONDITIONS WARRANT. WASH THOROUGHLY AFTER HANDLING. LAUNDRY CONTAMINATED CLOTHING BEFORE REUSE.

Other Precautions:USE WITH

ADEQUATE VENTILATION. STORE IN TIGHTLY CLOSED CONTAINER. STORE IN WELL-VENTILATED AREA. KEEP AWAY FROM HEAT, SPARKS, AND FLAMES. BOND AND GROUND DURING TRANSFER. HEPTANE WILL ATTACK SOME FORMS OF PLASTIC AND RUBBER.

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

Respiratory Protection:NOT GENERALLY REQUIRED UNLESS NEEDED TO PREVENT RESPIRATORY IRRITATION. IF EXPOSURE TO CONCENTRATIONS ABOVE THE RECOMMENDED EXPOSURE LIMIT IS POSSIBLE, USE NIOSH APPROVED

D

SELF-CONTAINED BREATHING APPARATUS (SCBA).

Ventilation:USE ADEQUATE VENTILATION TO CONTROL CONCENTRATION BELOW RECOMMENDED EXPOSURE LIMITS.

Protective Gloves:USE GLOVES RESISTANT TO THE MATERIAL BEING USED (BUNA-N OR POLYVINYL ALCOHOL).

Eye Protection:USE SAFETY GLASSES WITH SIDE SHIELDS.

Other Protective Equipment:FOR SPLASH PROTECTION, USE CHEMICAL GOGGLES AND FACE SHIELD.

Work Hygienic Practices:CONTACT IMMEDIATE SUPERVISOR FOR SPECIFIC INSTRUCTIONS BEFORE WORK IS INITI

ATED. WEAR PROTECTIVE EQUIPMENT

AND/OR GARMENTS IF EXPOSURE CONDITIONS WARRANT.

Supplemental Safety and Health

PRODUCT #: P07444. SYNONYMS: NORMAL HEPTANE, KNOCK TEST REFERENCE FUEL.

===== Physical/Chemical Properties =====

HCC:F2

Boiling Pt:=98.3C, 209.F

Vapor Pres:1.6 PSIA(83MMHG)@100F(38C

Vapor Density:3.4(AIR=1)

Spec Gravity:0.688@60/60F(16/16C)

Evaporation Rate & Reference:>1

Solubility in Water:NEGLIGIBLE

Appearance and Odor:CLEAR LIQUID; MILD, SWEET O
DOR.

Percent Volatiles by Volume:100

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

Stability Indicator/Materials to Avoid:YES

OXYGEN AND STRONG OXIDIZING AGENTS.

Stability Condition to Avoid:NOT APPLICABLE.

Hazardous Decomposition Products:CARBON OXIDES FORMED WHEN BURNED.

Conditions to Avoid Polymerization:WILL NOT OCCUR.

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

Waste Disposal Methods:(INSURE CONFORMITY WITH ALL APPLICABLE DISPOSAL
REGULA

TIONS): INCINERATE OR PLACE IN PERMITTED WASTE MANAGEMENT FACILITY.

===== MSDS Transport Information =====

Transport Information:SHIPPING NAME: HEPTANES, HAZARD CLASS: 3, ID NUMBER: UN1206, PACKING GROUP: II. MARKING: HEPTANES, UN 1206. LABEL: FLAMMABLE LIQUID. PLACARD: FLAMMABLE/1206. HAZARDOUS SUBSTANCE/RQ: NOT APPLICABLE. SH IPPING DESCRIPTION: HEPTANES, 3 (FLAMMABLE LIQUID), UN 1206, PG II. PACKAGING REFERENCES: 49 CFR 173.150, 173.202, 173.242.

===== Regulatory Information =====

SARA Title III Information:RCRA CLASSIFICATION: IGINITEABLE (D001). PRIOR TO DISPOSAL, CONSULT YOUR ENVIRONMENTAL CONTACT TO DETERMINE IF THE TCLP IS REQUIRED. REFERENCE 40 CFR PART 261. SARA 313: THIS PRODUCT DOES NOT CONTAIN A CHEMICAL OR CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SEC 313 OF TITLE III 40 CFR PART 372.

Federal Regulatory Information:THIS PRODUCT IS ON THE EPA'S TSCA INV ENTORY. HAZARD CLASSIFICATION :THIS PRODUCT MEETS THE FOLLOWING DEFINITIONS AS DEFINED BY THE OSHA HAZCOM 29 CFR 1910.1200: FLAMMABLE LIQUID AND HEALTH HAZARDS.

===== Other Information =====

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