

SAFETY DATA SHEET

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SEUTHE Steam-Smoke-Distillate

Revision: March 25, 2007

CHEMICAL NAME:

Synthetic Isoparaaffinic Hydrocarbon

64742-48-9

CHEMICAL FAMILY:

Aliphatic Hydrocarbon

PRODUCT DESCRIPTION:

Clear colorless liquid.

CONTACT ADDRESS:

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SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

EINECS NUMBER: 292-460-6

CAS NUMBER: 90622-58-5

Components that have to be reported SYMBOL/R-PHRASE

(EINECS and/or CAS NUMBERS)

Alcanes, C11 – C20 – iso

292-460-6, 90622-58-5

Xn,R65,R66

SECTION 3 HAZARDS IDENTIFICATION

This product is classified as dangerous, according to Directive 1999/45/EC or 67/548 EEC (see Section 15)

CLASSIFICATION/SYMBOL: HARMFUL/Xn R65, R66

HEALTH HAZARDS

Harmful: may cause lung damage if swallowed.

Repeated exposure may cause skin dryness or cracking.

PHYSICAL AND CHEMICAL HAZARDS / FIRE AND EXPLOSION HAZARDS

Low hazard. Material can form flammable mixtures or can burn only upon heating to temperature at or above flash point.

Static Discharge. Product can accumulate static charges which can cause an incendiary electrical discharge.

Cont.

SECTION 4 FIRST AID MEASURES

EYE CONTACT:

Flush eyes with large amounts of water until irritation subsides. If irritation persists, get medical attention.

SKIN CONTACT:

Flush with large amounts of water; use soap if available.
Remove grossly contaminated clothing, including shoes, and launder before reuse.

INHALATION:

Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.

INGESTION:

If swallowed, DO NOT induce vomiting. Keep at rest. Get prompt medical attention.

SECTION 5 FIRE-FIGHTING MEASURES

FIRE FIGHTING PROCEDURES

Use water spray to cool fire exposed surfaces and to protect personnel.
Isolate "fuel" supply from fire.
Use foam, dry chemical, or water spray to extinguish fire.
Avoid spraying water directly into storage containers due to danger of boilover.

DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS

No unusual

SECTION 6 ACCIDENTAL RELEASE MEASURES

LAND SPILL

Keep public away. Shut off source if possible to do so without hazards. Advise authorities if substance has entered a watercourse or sewer or has contaminated soil or vegetation. Take measures to minimize the effect to ground water.
Contain spilled liquid with sand or earth.
Recover by pumping (use an explosion proof or hand pump) or with a suitable absorbent. If liquid is too viscous for pumping, scrape up with shovels or pails and place in suitable containers for recycle or disposal.

Cont.

Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

WATER SPILL

Warn other shipping. Notify port or relevant authority and keep public away
Shut off source if possible to do so without hazard. Confine if possible..
Remove from surface by skimming or with suitable adsorbents. If allowed
by local authorities and environmental agencies, sinking and/or suitable
dispersants may be used in non-confined waters.
Consult an expert on disposal of recovered material and ensure conformity
to local disposal regulations.

SECTION 7 STORAGE AND HANDLING

STORAGE TEMPERATURE: Ambient
TRANSPORT TEMPERATURE: Ambient
VISCOSITY: 1,67 at 25 deg C
STORAGE/TRANSPORT PRESSURE (kPa): Atmospheric
ELECTROSTATIC ACCUMULATION HAZARDS: Yes, use proper grounding procedure.

STORAGE AND HANDLING:

Keep container closed. Handle and open containers with care.
Open slowly in order to control possible pressure release.
Store in a cool, well ventilated place away from incompatible materials.
Do NOT handle or store near an open flame, heat or other sources of ignition.
Protect material from direct sunlight.
Material will accumulate static charges which may cause an electrical
spark (ignition source). Use proper bonding and/or grounding procedures.
Do NOT pressurize, cut, heat, or weld containers. Empty product
containers may contain product residue. Do NOT reuse empty containers
without commercial cleaning or reconditioning.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**EXPOSURE CONTROLS**

The use of mechanical dilution ventilation is recommended whenever this product is
used in confined space, is heated above ambient temperatures or otherwise to maintain
ambient concentration below the recommended threshold exposure limits.

OCCUPATIONAL EXPOSURE LIMITS

SEUTHE GMBH recommends, for total hydrocarbons, based on composition and using
the Reciprocal Calculation Procedure (RCP):

Alkanes, C11 – C20 - iso
TWA 200 mg/m³ (171 ppm).

Cont.

PERSONAL PROTECTION**GENERAL ADVICE**

The use and choice of Personal Protection equipment is relate to the hazard of the product, the workplace, and the way the product is handled. In general, we recommend as a minimum safety precaution that safety glasses with side-shields and workclothes protecting arms, legs and body be used. In addition, any person visiting an area where this product is handled or processed should at least wear safety glasses with side-shields.

SPECIAL ADVICE

Based on and limited to Seuthe GmbH's experience of this product as such, the following special advice is believed to provide satisfactory protection for the industrial user or handler.

RESPIRATORY PROTECTION

Where concentrations in air may exceed the limits given in this section, it is recommended to use a half face filter mask to protect from overexposure by inhalation. Suitable filter material depends on the amount and type of chemicals being handled in the workplace, but filter material of type "A" or similar may be considered for use.

HAND PROTECTION

When handling this product, it is recommended to wear chemical resistant gloves. The choice of suitable protective gloves depends on work conditions and what chemicals are handled, but we have positive experience with gloves made of Nitrile. Gloves should be placed immediately if sign of degradation is observed.

EYE PROTECTION

See general advice.

SKIN/BODY PROTECTION

See general advice.

ENVIRONMENTAL EXPOSURE CONTROLS

See Section 12.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**General Information**

PHYSICAL STATE: Liquid

FORM/COLOUR: Clear colorless liquid

ODOR: Isoparaffinic hydrocarbon odour with slightly lemon scent

FREEZ./MELT/ POINT:	< -50 DegC	ASTM D97	
BOILING POINT RANGE:	between 185 and 330 DegC	ASTM D86	
VAPOR PRESSURE (20 DegC):	0,03 kPa		
VAPOR PRESSURE (38 DegC):	0,2 kPa		
VAPOR PRESSURE (50 DegC):	0,4 kPa		
DENSITY (15 DegC):	0,775 kg/dm ³	ASTM D4052	
VAPOR DENSITY (101.3 kPa/air-1):	> 1,00		
VISCOSITY (25 DegC):	1,67 mm ² /s	ASTM D445	
(40 DegC)	1,38 mm ² /s	Calculated	
EVAPORATION RATE (n-Bu Acetate = 1):	0,030	EC-M-F01	Cont.

Health, Safety & Environmental Information

FLASHPOINT (PMOC ASTM D93):	62 DegC	Minimum
AUTIGNITION TEMPERATURE:	> 200 DegC	
EXPLOSIVE LIMITS (in air):	between 0,6 and 7 Vol%	
SOLUBILITY IN WATER (20 DegC):	> 0,10 Wt%	

Other information

MOLECULAR WEIGHT	172	Calculated
COEFF. OF THERMAL EXPANSION (Liq.)	0,00097 DegC	
IS MATERIAL HYGROSCOPIC:	No	

SECTION 10 STABILITY AND REACTIVITY**STABILITY:**

Stable

CONDITIONS TO AVOID INSTABILITY:

Not applicable

HAZARDOUS POLYMERIZATION:

Will not occur

CONDITIONS TO AVOID HAZARDOUS POLYMERIZATION:

Not Applicable

MATERIALS AND CONDITIONS TO AVOID (INCOMPATIBILITY)

Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS:None

SECTION 11 TOXICOLOGICAL INFORMATION**INHALATION:**

Vapor concentrations above recommended exposure levels may be irritating to the eyes and the respiratory tract, may cause headaches and dizziness, could be anesthetic and may have other central nervous system effects.

SKIN CONTACT:

Low order of toxicity.

Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

EYE CONTACT:

Will cause eye discomfort, but will not injure eye tissue.

INGESTION:

Small amount of liquid aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary edema.

Minimal toxicity.

Cont.

SECTION 12 ECOLOGICAL INFORMATION

This product is classified as a Volatile Organic compound, according to the Directive 99/13/EC.

ENVIRONMENTAL MOBILITY

This product is highly volatile and will rapidly evaporate to the air if released into the water.

ENVIRONMENTAL DEGRADABILITY

This product can degrade rapidly in air.

This substance is expected to be removed in a wastewater treatment facility.

Based upon data for a similar component or preparation, or estimated data.

This product is expected to biodegrade at a moderate rate and be "inherently" biodegradable according OECD guidelines.

ECOTOXICITY AND BIOACCUMULATION

Based upon data for a similar component or preparation, or estimated data.

No acute toxicity to aquatic organisms is expected at a maximum water solubility of this material.

Long term adverse effects to aquatic organisms are not expected.

SECTION 13 DISPOSAL CONSIDERATIONS

The waste category of this product is "08 XX XX". The user must be aware that the conditions of use may affect the waste classification after use. Please refer to Directive 2001/118/EC for waste nomenclature.

Empty packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor.

Care should in any case be taken to ensure compliance with EC, national and local regulations.

This product is NOT suitable for disposal by either landfill or via municipal sewers, drains, natural streams or rivers.

This product is ashless and can be burned directly in appropriate equipment.

SECTION 14 TRANSPORT INFORMATION

LAND (railroad/road – RID/ADR)

This product is not regulated for road/rail transport.

INLAND WATERWAYS (ADN/ADNR)

CLASS: 9,80

TRANSPORT DOCUMENT NAME:

SUBSTANCES WITH $61^{\circ}\text{C} < \text{FP} \leq 100^{\circ}\text{C}$. N.O.S. (Isoundecanes) CLASS 9,80, ADNR.

SEA (IMDG)

This product is not regulated for sea transport.

AIR (ICAO/IATA)

This product is not regulated for air transport.

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Cont.

SECTION 15 REGULATORY INFORMATION

CLASSIFICATION AND LABELLING ACCORDING TO EC DIRECTIVES

This classification results from test data and/or assessment.

CLASSIFICATION/SYMBOL: HARMFUL/Xn

GOVERNING DIRECTIVE: Dangerous Substances Directive 67/548/EC, as modified.

LABEL NAME: ALKANES, C11 – C20, ISO

NATURE OF SPECIAL RISK

R65 Harmful: may cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness or cracking.

SAFETY ADVICE

S23 Do not breathe gas/fumes/vapour/spray

S24 Avoid contact with skin

S62 If swallowed, do not cause vomiting: seek medical advice immediately and show this container or label.

Please refer to section 16 for the text of all the "R" phrases mentioned in this document.

SECTION 16 OTHER INFORMATION

Library of Risk phrases listed in this document:

R65 Harmful: may cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness or cracking.

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