



Syntroil 440

SAFETY DATA SHEET

OSHA HCS (29 CFR 1910.1200)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Chemical Name Not applicable
Trade name Syntroil 440
CAS No. Mixture
EINECS No. Mixture

Relevant identified uses of the substance or mixture and uses advised against

Identified use(s) Synthetic Bearing Lubricant
Uses advised against None.

Details of the supplier of the safety data sheet

Company Identification Permawick Company
3110 Permawick Drive
Colombus, IN, 47201
Telephone (812) 376-0703
Fax (812) 372-1410
E-Mail (competent person) sales@permawick.com

Emergency telephone number

Emergency Phone No. Monday - Friday, 8 am – 4:30 p.m. (EST) (812) 376-0703
CHEMTREC 24 hr. (800) 424-9300

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

OSHA HCS (29 CFR 1910.1200) Aquatic Chronic 3

Label elements

Hazard Symbol None
Hazard statement(s) Harmful to aquatic life with long lasting effects.
Precautionary statement(s) Avoid release to the environment.

Other hazards

Not classified as PBT or vPvB.

Additional Information

None known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family: Polyol Ester

Hazardous ingredient(s)	%W/W	CAS No.	Hazard statement(s)
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	0 – 1.5	68411-46-1	May cause damage to organs through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects.
tris(methylphenyl) phosphate	0 – 1.5	1330-78-5	Suspected of damaging fertility or the unborn child. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Additional Information - Substances in the product which may present a health or environmental hazard, or which have been assigned occupational exposure limits, are detailed below.: None

SECTION 4: FIRST AID MEASURES



Description of first aid measures

Inhalation	Unlikely to be required but if necessary treat symptomatically.
Skin Contact	Wash affected skin with soap and water.
Eye Contact	Eyes should be washed with plenty of water. If symptoms occur obtain medical attention.
Ingestion	Unlikely to be required but if necessary treat symptomatically.

Most important symptoms and effects, both acute and delayed None

Indication of the immediate medical attention and special treatment needed None

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media

-Suitable Extinguishing Media	Extinguish with waterspray, dry chemical, sand or carbon dioxide.
-Unsuitable Extinguishing Media	None anticipated.

Special hazards arising from the substance or mixture This product may give rise to hazardous fumes in a fire.

Advice for fire-fighters A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Avoid skin contact. Avoid contact with eyes.

Environmental precautions Use appropriate container to avoid environmental contamination.

Methods and material for containment and cleaning up Contain and cover spilled substance with dry sand or earth or other suitable dry material. Transfer to a container for disposal or recovery.

Reference to other sections None
Additional Information None

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling Avoid skin contact. Avoid contact with eyes.

Conditions for safe storage, including any incompatibilities

-Storage Temperature	Store at room temperature.
-Incompatible materials	Strong oxidising agents.

Specific end use(s) Lubricating agent

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational Exposure Limits

SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)		STEL (ppm)		Note:
		PEL (OSHA)	TLV (ACGIH)	PEL (OSHA)	TLV (ACGIH)	
None	----	----	----	----	----	

Recommended monitoring method

None

Exposure controls

Appropriate engineering controls

Not normally required.

Personal protection equipment

Eye/face protection

Safety spectacles.



Skin protection (Hand protection/ Other)

Not normally required.



Respiratory protection

Not normally required.



Thermal hazards

Not normally required.

Environmental Exposure Controls

Use appropriate container to avoid environmental contamination. Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Viscous liquid.
Colour	Amber, Clear.
Odour	Faint Ester-like.
Odour Threshold (ppm)	Not available
pH (Value)	Not available
Melting Point (°C) / Freezing Point (°C)	Not available
Boiling point/boiling range (°C):	Not determined.
Flash Point (°C)	230 - 270 [Open cup]
Evaporation rate	Not applicable
Flammability (solid, gas)	Not applicable
Explosive limit ranges	Not applicable
Vapour Pressure (Pascal)	< 1
Vapour Density (Air=1)	> 1
Density (g/ml)	0.993 – 1.01
Solubility (Water)	Insoluble.



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Solubility (Other)	Not available
Partition Coefficient (n-Octanol/water)	Not available
Auto Ignition Temperature (°C)	>282
Decomposition Temperature (°C)	Not available
Kinematic Viscosity (cSt) @ 40°C	>20.5 - 150 (Listed in: Product specification)
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
Other information	Not available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions.
Chemical stability	Stable.
Possibility of hazardous reactions	None anticipated.
Conditions to avoid	None
Incompatible materials	Oxidizers
Hazardous Decomposition Product(s)	Carbon monoxide, Carbon dioxide

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (CAS No. 68411-46-1)

Acute toxicity

-Ingestion	LD50 > 5000 mg/kg (rat)
-Inhalation	No data
-Dermal	LD50 > 2000 mg/kg (rat)
-Irritation	Slightly irritant (Skin). Non-irritant to rabbit eyes.

Sensitisation

It is not a skin sensitiser.

Repeated dose toxicity

No data

Mutagenicity

Negative

Carcinogenicity

No data

Toxicity for reproduction

NOAEL = 125 mg/kg (P/F1) (rat)

Other information

IARC, NTP, OSHA, ACGIH do not list this product or any components thereof as known or suspected carcinogen.

tris(methylphenyl) phosphate (CAS No. 1330-78-5)

Acute toxicity

-Ingestion	LD50 > 20,000 mg/kg (rat)
-Inhalation	LC50 > 11.1 mg/l (rat) (1 hour(s))
-Dermal	LD50 3.7 g/kg (rabbit)
-Irritation	Slightly irritant (Skin). Non-irritant to rabbit eyes.

Sensitisation

It is not a skin sensitiser.

Repeated dose toxicity

Oral: NOAEL = 1000 mg/kg (rat)

Mutagenicity

Negative

Carcinogenicity

No data

Toxicity for reproduction

Positive

Developmental Toxicity

LOAEL = 20 mg/kg (Developmental)

NOEL = 20 mg/kg (Maternal)

Other information

None known

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (CAS No. 68411-46-1)

Acute toxicity

Fish LC50> 100 mg/l (96 hour) (*D. rerio*)



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Long Term	Aquatic invertebrates: EC50 >100 mg/l (48 hour) / (24 hour(s)) (<i>D. magna</i>)
<u>tris(methylphenyl) phosphate (CAS No. 1330-78-5)</u>	Algae EC50 > 100 mg/l (72 hour) (<i>D. subspicatus</i>)
Acute toxicity	(Growth rate) and (Biomass) No data
Long Term	Fish LC50 = 0.06 mg/l (96 hour) (<i>Rainbow trout</i>) Fish LC50 = 44.8 mg/l (96 hour) (<i>Fathead minnow</i>) Aquatic invertebrates: EC50 = 146 µg/l (48 hour) (<i>D. magna</i>) Algae EL50 > 2500 µg/l (72 hour) / (96 hour) (<i>S. capricornutum</i>)
Long Term	Fish Sublethal Effects = 0.9 mg/l (4 week(s)) (<i>O. mykiss</i>) Aquatic invertebrates: NOEC = 0.011 – 0.019 mg/l (Survival) (<i>G. pseudolimnaeus</i>)
Persistence and degradability	Not available
Bioaccumulative potential	Not available
Mobility in soil	No data
Results of PBT and vPvB assessment	Not classified as PBT or vPvB.
Other adverse effects	None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods	Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.
Additional Information	None known.

SECTION 14: TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)	Not classified as dangerous for transport.
UN number	
Proper Shipping Name	
Transport hazard class(es)	
Packing Group	
Marine Pollutant	
Special precautions for user	
UN number	
Land transport (ADR/RID)	
UN number	Not classified as dangerous for transport.
Proper Shipping Name	
Transport hazard class(es)	
Packing Group	
Marine Pollutant	
Special precautions for user	
Sea transport (IMDG)	Not classified as dangerous for transport.
UN number	
Proper Shipping Name	
Transport hazard class(es)	
Packing Group	
Environmental hazards	
Special precautions for user	
Air transport (ICAO/IATA)	Not classified as dangerous for transport.
UN number	
Proper Shipping Name	



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Transport hazard class(es)
Packing Group
Environmental hazards
Special precautions for user

Transport in bulk according to Annex II of
MARPOL73/78 and the IBC Code

Not established

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:

TSCA (Toxic Substance Control Act) - Inventory Status: All components listed or polymer exempt.

Designated Hazardous Substances and Reportable Quantities (40 CFR 302.4):

Chemical Name	CAS No.	Typical %wt.	RQ (Pounds)
None	----	----	----

SARA 311/312 - Hazard Categories:

- Fire Sudden Release Reactivity Immediate (acute) Chronic (delayed)

SARA 313 - Toxic Chemicals (40 CFR 372):

Chemical Name	CAS No.	Typical %wt.
None	----	----

SARA 302 - Extremely Hazardous Substances(40 CFR 355):

Chemical Name	CAS No.	Typical %wt.	TPQ (pounds)
None	----	----	----

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

Date of preparation: April 16, 2013

Additional Information: None.

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