

SAFETY DATA SHEET

Revision date 2019-Feb-13

Revision number 1.03

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name GEOlube[®] BCF 11
Product code 745667
Synonyms None

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

Recommended use [RU] Lubricant
Uses advised against None known

1.3 Details of the supplier of the safety data sheet

Supplier
GEO Specialty Chemicals UK Ltd
Charleston Road, Hardley, Hythe
Southampton, Hampshire SO45 3ZG
United Kingdom
Phone: +44 (0)23 80894666
Fax No: +44 (0)23 80243113

Responsibility Statement For further information, please contact safety-data-sheet-fp@geosc.com

1.4 Emergency telephone number

Emergency telephone 24 Hour Emergency Phone Number
GEO Specialty Chemicals UK Ltd
+44 (0)23 80891806

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Reproductive toxicity	Category 1B
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2.2 Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]



Signal word DANGER

Hazard statements

H360F - May damage fertility

Precautionary statements

P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P262 - Do not get in eyes, on skin, or on clothing

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P308 + P313 - IF exposed or concerned: Get medical advice/attention

P405 - Store locked up

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

Special labeling of certain preparations Contains 4,4'-isopropylidenediphenol. May produce an allergic reaction - Dermal

2.3 Other Information

None known

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixtures

Component	EU EINECS	weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	(REACH) Regulation (EC 1907/2006)
(Tetrapropenyl)succinic anhydride 26544-38-7	247-781-6	>= 1 - < 5	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	In compliance
4,4'-Isopropylidenediphenol 80-05-7	201-245-8	>= 0.1 - < 1	Eye Dam. 1 (H318) Skin Sens. 1 (H317) Repr. 1B (H360F) STOT SE 3 (H335)	In compliance

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

In case of adverse health effects seek medical advice.

Eye contact

Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

Skin contact

Rinse with running water and soap. If irritation should develop, get medical attention.

Ingestion

Rinse mouth with water, then drink one or two glasses of water.

Inhalation

Remove to fresh air.

4.2 Most important symptoms and effects, both acute and delayed**Most important symptoms and effects**

None known.

4.3 Indication of any immediate medical attention and special treatment needed**Note to physicians**

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media**Suitable extinguishing media**

Water spray jet, Alcohol-resistant foam, Extinguishing powder, Carbon dioxide.

Extinguishing media which must not be used for safety reasons

High pressure waterjet.

5.2 Special hazards arising from the substance or mixture**Special Hazard**

Formation of toxic gases is possible during heating or in fires.

Hazardous combustion products

Carbon oxides. Aldehydes. Toxic vapors. Irritating vapors.

5.3 Advice for firefighters**Special protective equipment for firefighters**

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Firefighting measures

Cool exposed containers with water spray after extinguishing fire.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures**Personal precautions**

Wear suitable protective clothing and gloves.

6.2 Environmental precautions**Environmental precautions**

Do not empty into drains/surface water/ground water. Inform authorities in the event of product spillage to water courses or sewage systems.

6.3 Methods and material for containment and cleaning up**Methods for cleaning up**

Remove with liquid-absorbing material (sand, peat, sawdust).

6.4 Reference to other sections

See Section 12 for additional Ecological Information

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling

Ensure that workrooms are adequately ventilated.

Avoid spraying/aerosol generation.

Use adequate ventilation and/or engineering controls in high temperature processing to prevent exposure to vapors

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

When storing in tanks above 60 °C, cover with a layer of nitrogen-protective gas.

Do not store together with reductants. Do not store together with oxidants.

Keep away from heat. Protect from direct sunlight

Keep only in the original container in a cool, well-ventilated place

7.3 Specific end use(s)

Specific use(s)

Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limit value

Component	European Union	United Kingdom	Spain	Germany
4,4'-Isopropylidenediphenol 80-05-7	NAV	TWA: 10 mg/m ³ STEL: 30 mg/m ³	TWA: 10 mg/m ³ sensitizer	MAK: 5 mg/m ³ 5 mg/m ³ Peak (inhalable fraction)
Component	Ireland	France	Italy	Portugal
4,4'-Isopropylidenediphenol 80-05-7	NAV	TWA: 10 mg/m ³	NAV	TWA: 10 mg/m ³
Component	Austria	Belgium	Switzerland	Poland
4,4'-Isopropylidenediphenol 80-05-7	STEL 5 mg/m ³ Ceiling 5 mg/m ³ TWA: 5 mg/m ³	TWA: 10 mg/m ³	STEL: 5 mg/m ³ inhalable dust TWA: 5 mg/m ³ inhalable dust	TWA: 5 mg/m ³ STEL: 10 mg/m ³
Component	Finland	Norway	Denmark	Netherlands
4,4'-Isopropylidenediphenol 80-05-7	TWA: 5 mg/m ³	STEL: 15 mg/m ³ TWA: 10 mg/m ³	TWA: 3 mg/m ³	10 mg/m ³ TWA respirable

Biological limit values

Component	European Union	United Kingdom	Spain	Germany
4,4'-Isopropylidenediphenol 80-05-7	NAV	NAV	NAV	NAV

Legend

NAV - Not available

8.2 Exposure controls

Personal Protective Equipment

Eye/face Protection

Tight sealing safety goggles.

Hand Protection

PVC or Nitrile

Skin and body protection

Wear suitable protective clothing.

Respiratory protection

When processing in open systems with aerosol formation wear suitable respiratory protection to avoid inhalation of aerosol particles.

Other personal protection data

Eyewash fountains and safety showers must be easily accessible.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Physical state	liquid
Color	light yellow
Appearance	clear
Odor	No information available
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH	No information available	No information available
Melting / freezing point	No information available	No information available
Boiling point / boiling range	No information available	No information available
Flash point	> 200 °C / > 392 °F	ASTM D 92-97
Evaporation rate	No information available	No information available
Flammability (solid, gas)	No information available	No information available
Flammability Limit in Air		
Upper flammability limit	No information available	No information available
Lower flammability limit	No information available	No information available
Vapor pressure	No information available	No information available
Vapor density	No information available	No information available
Specific gravity	No information available	No information available
Solubility (water)	insoluble	No information available
Solubility in other solvents	No information available	No information available
Partition coefficient: n-octanol/water	No information available	No information available
Autoignition temperature	No information available	No information available

Decomposition temperature	No information available	No information available
Kinematic viscosity	245 mm ² /s @ 40 °C	ASTM D 445-97
Dynamic viscosity	No information available	No information available
Density	1.001 g/cm ³ @ 20 °C	ASTM D 1298-99

9.2 Other information

Bulk Density	No information available
Explosive properties	Not an explosive.
Oxidizing properties	The substance or mixture is not classified as oxidizing.
Softening point	No information available
Molecular weight	mixture
Volatile Organic Compound (VOC) content, wt.%	No information available
Percent Volatile, wt.%	No information available

10. STABILITY AND REACTIVITY

10.1 Reactivity

Reactivity

No information available.

10.2 Chemical stability

Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerization

Hazardous polymerization does not occur.

10.4 Conditions to avoid

Conditions to avoid

None.

10.5 Incompatible materials

Materials to avoid

Reaction with strong acids. Reaction with oxidants.

10.6 Hazardous decomposition products

Hazardous decomposition products

Can decompose slowly with localized heating above 150°C.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute health hazard

Eye contact

This product is not considered to be an eye irritant.

Skin contact

This product is not considered to be a skin irritant.

Ingestion

No data available.

Inhalation

No data available.

Acute toxicity - Product Information

Oral LD50 > 2,000 mg/kg (analogy)

Dermal LD50 No information available

Inhalation LC50 No information available

Acute toxicity - Component Information

Component	Oral LD50	Dermal LD50	Inhalation LC50
(Tetrapropenyl)succinic anhydride 26544-38-7 ($\geq 1 - < 5$)	= 2550 mg/kg (Rat)	= 6200 mg/kg (Rabbit)	--
4,4'-Isopropylidenediphenol 80-05-7 ($\geq 0.1 - < 1$)	= 3300 mg/kg (Rat)	= 3 mL/kg (Rabbit)	--

Skin corrosion/irritation

not irritating (analogy)

Serious eye damage/eye irritation

not irritating (analogy)

Sensitization

No information available

Germ cell mutagenicity

No information available

Carcinogenicity

No information available

Reproductive toxicity

Category 1B (based on 4,4'-Isopropylidenediphenol)

Specific target organ toxicity - Single exposure

No information available.

Specific target organ toxicity - Repeated exposure

No information available

Aspiration hazard

No information available

12. ECOLOGICAL INFORMATION

12.1 Toxicity**Acute aquatic toxicity - Product Information**

Fish LC50 > 100 mg/l (analogy)

Crustacea No information available

Bacteria toxicity EC0 > 100 mg/l (analogy)

Algae/aquatic plants No information available

Acute aquatic toxicity - Component Information

Component	Algae/aquatic plants	Fish	Toxicity to daphnia and other aquatic invertebrates
4,4'-Isopropylidenediphenol 80-05-7 (>= 0.1 - < 1)	EC50 (96 h) = 2.5 mg/L (Pseudokirchneriella subcapitata)	LC50 (96 h flow-through) 3.6 - 5.4 mg/L (Pimephales promelas) LC50 (96 h static) = 9.9 mg/L (Brachydanio rerio) LC50 (96 h) = 4 mg/L (Oncorhynchus mykiss) LC50 (96 h static) 4.0 - 5.5 mg/L (Pimephales promelas)	EC50 (48 h) = 10.2 mg/L (Daphnia magna) EC50 (48 h) = 3.9 mg/L (Daphnia magna) EC50 (48 h Static) 9.2 - 11.4 mg/L (Daphnia magna)

12.2 Persistence and degradability

Persistence and degradability
No information available

Ultimate biodegradation
Not readily biodegradable

12.3 Bioaccumulative potential

Bioaccumulative potential
No information available

12.4 Mobility in soil

Mobility
No information available

12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment
No information available

12.6 Other adverse effects

Other information
No other ecological studies have been carried out on this product.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal of wastes
Dispose of according to regulations.

Contaminated packaging
Packaging that cannot be cleaned are to be disposed of in the same manner as the product. Disposal must be made according to official regulations.

14. TRANSPORT INFORMATION

US DOT Not regulated

14.1. UN number

14.2. UN proper shipping name

- 14.3. Transport hazard class(es)
- 14.4. Packing group
- 14.5. Environmental hazards
- 14.6. Special precautions for user

Land transport (ADR/RID) Not regulated

- 14.1. UN number
- 14.2. UN proper shipping name
- 14.3. Transport hazard class(es)
- 14.4. Packing group
- 14.5. Environmental hazards
- 14.6. Special precautions for user

Air transport (ICAO-TI / IATA-DGR) Not regulated

- 14.1. UN number
- 14.2. UN proper shipping name
- 14.3. Transport hazard class(es)
- 14.4. Packing group
- 14.5. Environmental hazards
- 14.6. Special precautions for user

Sea transport (IMDG) Not regulated

- 14.1. UN number
- 14.2. UN proper shipping name
- 14.3. Transport hazard class(es)
- 14.4. Packing group
- 14.5. Environmental hazards
- 14.6. Special precautions for user

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

15. REGULATORY INFORMATION

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

International Inventories

Australia (AICS)

All ingredients are on the inventory or exempt from listing

Canada (DSL)

All ingredients are on the inventory or exempt from listing

Canada (NDSL)

None of the ingredients are on the inventory.

China (IECSC)

All ingredients are on the inventory or exempt from listing

European Union (EINECS)

All ingredients are on the inventory or exempt from listing

European Union (ELINCS)

None of the ingredients are on the inventory.

Japan (ENCS)

All ingredients are on the inventory or exempt from listing

South Korea (KECL)

All ingredients are on the inventory or exempt from listing

Philippines (PICCS)

All ingredients are on the inventory or exempt from listing

United States (TSCA)

All ingredients are on the inventory or exempt from listing

Legend

AICS - Australian Inventory of Chemical Substances

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

IECSC - China Inventory of Existing Chemical Substances

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

15.2 Chemical Safety Report

No information available.

16. OTHER INFORMATION

Product code 745667

Revision date 2019-Feb-13

Full text of H-Statements referred to under sections 2 and 3

H360F - May damage fertility

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

Key or legend to abbreviations and acronyms used in the safety data sheet

NAV - Not available

This safety data sheet complies with the requirements of: Regulation (EC) No. 1907/2006.

Additional information

GEOLube® is a registered trademark of GEO Specialty Chemicals, Inc.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.