

Safety Data Sheet

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

1.1 Product Identifier

Material Name : GTL BO3
CAS No. : 848301-69-9

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

Product Use : Gasoil blending component.

1.3 Details of the Supplier of the safety data sheet

Manufacturer/Supplier : **Shell Trading International Limited**
80 Strand
London,
WC2R 0ZA
United Kingdom

Telephone : +44 (0) 20 7546 2364
Email Contact for Safety Data Sheet : TRsds@shell.com

1.4 Emergency Telephone Number

: +44 (0)151 350 4595

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

| Regulation (EC) No 1272/2008 (CLP) | |
|------------------------------------|------------------|
| Hazard classes / Hazard categories | Hazard Statement |
| Aspiration hazard, Category 1 | H304 |

| 1999/45/EC | |
|------------------------|--------------|
| Hazard Characteristics | R-phrases(s) |
| Xn: Harmful.; | R65 |

Classification triggering components : Contains Distillates (Fischer - Tropsch), heavy, C18-50 - branched, cyclic and linear.

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2.2 Label Elements

Labeling according to Regulation (EC) No 1272/2008

Hazard pictograms :



Signal Words : Danger

CLP Hazard Statements : PHYSICAL HAZARDS:
Not classified as a physical hazard under GHS criteria.

HEALTH HAZARDS:
H304: May be fatal if swallowed and enters airways.

ENVIRONMENTAL HAZARDS:
Not classified as an environmental hazard under GHS criteria.

CLP Precautionary statements

Prevention : No precautionary phrases.

Response : P301+P310: IF SWALLOWED: Immediately call a POISON
CENTER or doctor/physician.
P331: Do NOT induce vomiting.

Storage : P405: Store locked up.

Disposal: : P501: Dispose of contents and container to appropriate waste
site or reclaimer in accordance with local and national
regulations.

2.3 Other Hazards

: Not classified as flammable but will burn.

Used oil may contain harmful impurities.

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Health Hazards : Harmful: may cause lung damage if swallowed.

Environmental Hazards : Not classified as dangerous for the environment.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

Material Name : Fischer-Tropsch derived base oil, consisting largely of branched, cyclic and linear hydrocarbons having carbon numbers in the range of C18 to C50.

CAS No. : 848301-69-9

3.2 Mixtures

Mixture Description : Product is not a mixture according to regulation 1907/2006/EC.

Hazardous Components

Classification of components according to Regulation (EC) No 1272/2008

| Chemical Name | CAS No. | EC Number | REACH Registration No. | Conc. |
|--|-------------|---------------|------------------------|-----------------|
| Distillates (Fischer - Tropsch), heavy, C18-50 – branched, cyclic and linear | 848301-69-9 | Not available | 01-0000020163-82 | 95,00 - 100,00% |

| Chemical Name | Hazard Class & Category | Hazard Statement |
|--|-------------------------|------------------|
| Distillates (Fischer - Tropsch), heavy, C18-50 – branched, cyclic and linear | Asp. Tox., 1; | H304; |

Classification of components according to 67/548/EEC

| Chemical Name | CAS No. | EC Number | REACH Registration No. | Symbol(s) | R-phrases | Conc. |
|------------------------|-------------|---------------|------------------------|-----------|-----------|-----------------|
| Distillates (Fischer - | 848301-69-9 | Not available | 01-0000020163- | Xn | R65 | 95,00 - 100,00% |

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| | | | | | | |
|--|--|--|----|--|--|--|
| Tropsch), heavy, C18-50 – branched, cyclic and linear | | | 82 | | | |
|--|--|--|----|--|--|--|

Additional Information : Refer to Ch 16 for full text of R- and H- phrases.

SECTION 4. FIRST AID MEASURES

4.1 Description of First Aid Measures

- Inhalation** : No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice.
- Skin Contact** : Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.
- Eye Contact** : Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.
- Ingestion** : If swallowed, do not induce vomiting; transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3°C), shortness of breath, chest congestion or continued coughing or wheezing. Give nothing by mouth.

4.2 Most important symptoms and effects, both acute and delayed : If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. The onset of respiratory symptoms may be delayed for several hours after exposure. Defatting dermatitis signs and symptoms may include a burning sensation and/or a dried/cracked appearance. Ingestion may result in nausea, vomiting and/or diarrhoea.

4.3 Indication of any immediate medical attention and special treatment needed : Treat symptomatically.
Call a doctor or poison control center for guidance.

SECTION 5. FIRE FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

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- 5.1 Extinguishing Media** : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
- Unsuitable Extinguishing Media** : Do not use water in a jet.
- 5.2 Special hazards arising from the substance or mixture** : Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds.
- 5.3 Advice for firefighters** : Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. See Chapter 13 for information on disposal. Observe the relevant local and international regulations.

- 6.1 Personal Precautions, Protective Equipment and Emergency Procedures** : Avoid contact with skin and eyes.
- 6.2 Environmental Precautions** : Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.
- 6.3 Methods and Material for Containment and Cleaning Up** : Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.
- Additional Advice** : Local authorities should be advised if significant spillages cannot be contained.
- 6.4 Reference to other sections** : For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of this Material Safety Data Sheet.

SECTION 7. HANDLING AND STORAGE

- General Precautions** : Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine

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- appropriate controls for safe handling, storage and disposal of this material.
- 7.1 Precautions for Safe Handling** : Avoid prolonged or repeated contact with skin. Avoid inhaling vapour and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used.
- 7.2 Conditions for safe storage, including any incompatibilities** : 50°C / 122°F
- Recommended Materials** : For containers or container linings, use mild steel or high density polyethylene.
- Unsuitable Materials** : PVC.
- 7.3 Specific end use(s)** : Not applicable
- Additional Information** : Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

If the American Conference of Governmental Industrial Hygienists (ACGIH) value is provided on this document, it is provided for information only.

8.1 Control Parameters

Occupational Exposure Limits

| Material | Source | Type | ppm | mg/m3 | Notation |
|-------------------|--------|--------------------------|-----|---------|----------|
| Oil mist, mineral | ACGIH | TWA(Inhalable fraction.) | | 5 mg/m3 | |
| | NL OEL | TGG(Mist.) | | 5 mg/m3 | |

- Additional Information** : Do not ingest. If swallowed then seek immediate medical assistance.

If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to EN374 and provide employee skin care programmes.

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Biological Exposure Index (BEI)

Data not available

PNEC related information : Substance is a hydrocarbon with a complex, unknown or variable composition. Conventional methods of deriving PNECs are not appropriate and it is not possible to identify a single representative PNEC for such substances.

Monitoring Methods : Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

8.2 Exposure Controls

General Information : The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate ventilation to control airborne concentrations. Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

Occupational Exposure Controls

Personal Protective Equipment : Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Eye Protection : Wear safety glasses or full face shield if splashes are likely to occur. Approved to EU Standard EN166.

Hand Protection : Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

Body protection : Skin protection not ordinarily required beyond standard issue work clothes.

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Respiratory Protection : No respiratory protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapours [boiling point >65 °C (149 °F)] meeting EN14387.

Environmental Exposure Controls

Environmental exposure control measures : Minimise release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| | |
|---|--|
| Appearance | : Clear. Liquid at room temperature. |
| Odour | : Slight hydrocarbon. |
| Odour threshold | : Data not available |
| pH | : Not applicable. |
| Initial Boiling Point and Boiling Range | : > 280 °C / 536 °F estimated value(s) |
| Pour point | : Typical -30 °C / -22 °F |
| Flash point | : > 107 °C / 225 °F (PMCC / ASTM D93) |
| Upper / lower Flammability or Explosion limits | : Typical 1 - 10 %(V) (based on mineral oil) |
| Auto-ignition temperature | : > 320 °C / 608 °F |
| Vapour pressure | : < 0,5 Pa at 20 °C / 68 °F (estimated value(s)) |
| Density | : Typical 806,6 kg/m ³ at 15 °C / 59 °F |
| Water solubility | : Negligible. |
| n-octanol/water partition coefficient (log Pow) | : > 6 (based on information on similar products) |
| Kinematic viscosity | : 6,5 - 11,0 mm ² /s at 40 °C / 104 °F |
| Vapour density (air=1) | : > 1 (estimated value(s)) |
| Evaporation rate (nBuAc=1) | : Data not available |
| Flammability | : Data not available |

9.2 Other Information

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Other Information : Not applicable.

SECTION 10. STABILITY AND REACTIVITY

- 10.1 Reactivity** : The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.
- 10.2 Chemical stability** : Stable.
- 10.3 Possibility of Hazardous Reactions** :
Reacts with strong oxidising agents.
- 10.4 Conditions to Avoid** : Extremes of temperature and direct sunlight.
- 10.5 Incompatible Materials** : Strong oxidising agents.
- 10.6 Hazardous Decomposition Products** : Hazardous decomposition products are not expected to form during normal storage.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological effects

- Basis for Assessment** : Information given is based on data on the components and the toxicology of similar products.
- Likely Routes of Exposure** : Skin and eye contact are the primary routes of exposure although exposure may occur through inhalation or following accidental ingestion.
- Acute Inhalation Toxicity** : Low toxicity: LC50 >5 mg/l / 4 h, Rat
- Skin corrosion/irritation** : Expected to be slightly irritating. Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis.
- Serious eye damage/irritation** : Expected to be slightly irritating.
- Respiratory Irritation** : Inhalation of vapours or mists may cause irritation to the respiratory system.
- Respiratory or skin sensitisation** : Not expected to be a skin sensitiser.
- Aspiration Hazard** : Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.
- Germ cell mutagenicity** : Not expected to be mutagenic.
- Carcinogenicity** : Components are not known to be associated with carcinogenic effects.
- Reproductive and Developmental Toxicity** : Not expected to be a hazard.

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|---|---|---|
| Specific target organ toxicity - single exposure | : | Not expected to be a hazard. |
| Specific target organ toxicity - repeated exposure | : | Not expected to be a hazard. |
| Additional Information | : | Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal. ALL used oil should be handled with caution and skin contact avoided as far as possible. |

SECTION 12. ECOLOGICAL INFORMATION

| | | |
|--|---|--|
| Basis for Assessment | : | Incomplete ecotoxicological data are available for this product. The information given below is based partly on a knowledge of the components and the ecotoxicology of similar products. |
| 12.1 Toxicity | | |
| Acute Toxicity | : | Poorly soluble mixture. May cause physical fouling of aquatic organisms. Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l (to aquatic organisms) LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract. |
| Fish | : | Practically non toxic: LL/EL/IL50 > 100 mg/l |
| Aquatic crustacea | : | Practically non toxic: LL/EL/IL50 > 100 mg/l |
| Algae/aquatic plants | : | Practically non toxic: LL/EL/IL50 > 100 mg/l |
| Chronic Toxicity | | |
| Fish | : | NOEC/NOEL > 100 mg/l |
| Aquatic crustacea | : | NOEC/NOEL > 1.0 - <=10 mg/l |
| 12.2 Persistence and degradability | : | Major constituents are expected to be readily biodegradable, but the product contains components that may persist in the environment. |
| 12.3 Bioaccumulative Potential | : | Contains components with the potential to bioaccumulate. |
| 12.4 Mobility in Soil | : | Liquid under most environmental conditions. Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile. |
| 12.5 Result of PBT and vPvB assesment | : | The substance does not fulfill all screening criteria for persistence, bioaccumulation and toxicity and hence is not |

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considered to be PBT or vPvB.

12.6 Other Adverse Effects : Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities. Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Material Disposal : Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses.

Container Disposal : Dispose in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.

Local Legislation : Disposal should be in accordance with applicable regional, national, and local laws and regulations.
EU Waste Disposal Code (EWC): 13 08 99 oil waste not otherwise specified. Classification of waste is always the responsibility of the end user.

SECTION 14. TRANSPORT INFORMATION

Land transport (ADR/RID):

ADR

This product is not classified as dangerous for this mode of transport. Therefore 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 do not apply.

RID

This product is not classified as dangerous for this mode of transport. Therefore 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 do not apply.

Inland waterways transport (ADN):

This product is not classified as dangerous for this mode of transport. Therefore 14.1 UN Number, 14.2 UN Proper Shipping name, 14.3 Transport hazard class(es), 14.4 Packing group,

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14.5 Environmental hazards, 14.6 Special precautions for user do not apply.

Sea transport (IMDG Code):

This product is not classified as dangerous for this mode of transport. Therefore 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 do not apply.

Air transport (IATA):

This product is not classified as dangerous for this mode of transport. Therefore 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 do not apply.

SECTION 15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

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

Other regulatory Information

Chemical Inventory Status

| | | |
|--------|---|--|
| EINECS | : | All components listed or polymer exempt. |
| TSCA | : | All components listed. |

| | | |
|---------------------------------|---|--|
| 15.2 Chemical Safety Assessment | : | A Chemical Safety Assessment was performed for this substance. |
|---------------------------------|---|--|

SECTION 16. OTHER INFORMATION

R-phrases(s)

R65 Harmful: may cause lung damage if swallowed.

CLP Hazard Statements

H304 May be fatal if swallowed and enters airways.

| | | |
|------------------------|---|--|
| Additional Information | : | This product is classified as R65 (Harmful: may cause lung |
|------------------------|---|--|

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damage if swallowed) respectively H304 (May be fatal if swallowed and enters airways). The risk relates to potential for aspiration. The risk arising from aspiration hazard is solely related to the physico-chemical properties of the substance. The risk can therefore be controlled by implementing risk management measures tailored to this specific hazard. An exposure scenario is not presented.

Other Information

Abbreviations and Acronyms

: ACGIH = American Conference of Governmental Industrial Hygienists
ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road
AICS = Australian Inventory of Chemical Substances
ASTM = American Society for Testing and Materials
BEL = Biological exposure limits
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes
CAS = Chemical Abstracts Service
CEFIC = European Chemical Industry Council
CLP = Classification Packaging and Labelling
COC = Cleveland Open-Cup
DIN = Deutsches Institut für Normung
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
DSL = Canada Domestic Substance List
EC = European Commission
EC50 = Effective Concentration fifty
ECETOC = European Center on Ecotoxicology and Toxicology Of Chemicals
ECHA = European Chemicals Agency
EH40 WEL = UK Environmental Hygiene Guidance Note 40 - Workplace Exposure Limit (GB only)
EINECS = The European Inventory of Existing Commercial Chemical Substances
EL50 = Effective Loading fifty
ENCS = Japanese Existing and New Chemical Substances Inventory
EWC = European Waste Code
GHS = Globally Harmonised System of Classification and Labelling of Chemicals
IARC = International Agency for Research on Cancer
IATA = International Air Transport Association
IC50 = Inhibitory Concentration fifty
IL50 = Inhibitory Level fifty

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IMDG = International Maritime Dangerous Goods
INV = Chinese Chemicals Inventory
IP346 = Institute of Petroleum test method N° 346 for the determination of polycyclic aromatics DMSO-extractables
KECI = Korea Existing Chemicals Inventory
LC50 = Lethal Concentration fifty
LD50 = Lethal Dose fifty per cent.
LL/EL/IL = Lethal Loading/Effective Loading/Inhibitory loading
LL50 = Lethal Loading fifty
MARPOL = International Convention for the Prevention of Pollution From Ships
NOEC/NOEL = No Observed Effect Concentration / No Observed Effect Level
OE_HP V = Occupational Exposure - High Production Volume
PBT = Persistent, Bioaccumulative and Toxic
PICCS = Philippine Inventory of Chemicals and Chemical Substances
PNEC = Predicted No Effect Concentration
REACH = Registration Evaluation And Authorisation Of Chemicals
RID = Regulations Relating to International Carriage of Dangerous Goods by Rail
SKIN_DES = Skin Designation
STEL = Short term exposure limit
TRA = Targeted Risk Assessment
TSCA = US Toxic Substances Control Act
TWA = Time-Weighted Average
vPvB = very Persistent and very Bioaccumulative

SDS Distribution : The information in this document should be made available to all who may handle the product.

SDS Version Number : 1.0

SDS Effective Date : 22.10.2012

SDS Revisions : A vertical bar (|) in the left margin indicates an amendment from the previous version.

SDS Regulation : Regulation 1907/2006/EC as amended by Regulation (EU) 453/2010

Disclaimer : This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.