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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

: Shell Tonna S3 M 68 Trade name

Product code : 001D7774

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

Use of the Sub-: Machine oil.

stance/Mixture

Uses advised against

This product must not be used in applications other than those listed in Section 1 without first seeking the advice of the sup-

plier.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier : Shell Deutschland GmbH

> Suhrenkamp 71-77 D-22335 Hamburg : (+49) 40 6324-6255

Telephone Telefax (+49) 40 6321-051

Contact for Safety Data : If you have any enquiries about the content of this SDS

please email lubricantSDS@shell.com Sheet

1.4 Emergency telephone number

: (+49) 30 3068 6700 (Giftnotruf Berlin)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Long-term (chronic) aquatic hazard, Cat-H412: Harmful to aquatic life with long lasting ef-

egory 3 fects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms : No symbol Signal word No signal word

Hazard statements PHYSICAL HAZARDS:

Not classified as a physical hazard according to CLP

criteria.

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HEALTH HAZARDS:

Not classified as a health hazard under CLP criteria.

ENVIRONMENTAL HAZARDS:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : Prevention:

P273 Avoid release to the environment.

Response:

No precautionary phrases.

Storage:

No precautionary phrases.

Disposal:

P501 Dispose of contents/ container to an approved waste

disposal plant.

Sensitising components : Contains alkyl thiadiazole.

May produce an allergic reaction.

2.3 Other hazards

This mixture does not contain any REACH registered substances that are assessed to be a PBT or a vPvB.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

Used oil may contain harmful impurities.

Not classified as flammable but will burn.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Highly refined mineral oils and additives.

The highly refined mineral oil contains <3% (w/w) DMSO-

extract, according to IP346.

Classification based on DMSO extract content < 3% (Regula-

tion (EC) 1272/2008, Annex VI, Part 3, Note L).

* contains one or more of the following CAS-numbers (REACH registration numbers): 64742-53-6 (01-2119480375-34), 64742-54-7 (01-2119484627-25), 64742-55-8 (01-2119487077-29), 64742-56-9 (01-2119480132-48), 64742-65-

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 $\begin{array}{l} 0\ (01\text{-}2119471299\text{-}27),\ 68037\text{-}01\text{-}4\ (01\text{-}2119486452\text{-}34),\\ 72623\text{-}86\text{-}0\ (01\text{-}2119474878\text{-}16),\ 72623\text{-}87\text{-}1\ (01\text{-}\\ 2119474889\text{-}13),\ 8042\text{-}47\text{-}5\ (01\text{-}2119487078\text{-}27),\ 848301\text{-}69\text{-}\\ 9\ (01\text{-}0000020163\text{-}82),\ 68649\text{-}12\text{-}7\ (01\text{-}2119527646\text{-}33),\\ 151006\text{-}60\text{-}9\ (01\text{-}2119523580\text{-}47),\ 163149\text{-}28\text{-}8\ (01\text{-}\\ 2119543695\text{-}30),\ 64741\text{-}88\text{-}4\ (01\text{-}2119488706\text{-}23),\ 64741\text{-}89\text{-}\\ 5\ (01\text{-}2119487067\text{-}30). \end{array}$

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Interchangeable low viscosity base oil (<20,5 cSt @40°C) *	Not Assigned	Asp. Tox. 1; H304	0 - 99
Butylated hydroxytoluene	128-37-0 204-881-4 01-2119565113-46	Aquatic Chronic 1; H410 Aquatic Acute 1; H400 M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	0,1 - 0,24
Alkyl thiadiazole	Not Assigned 948-020-7 01-2120792779-28	Skin Irrit. 2; H315 Skin Sens. 1A; H317 Acute Tox. 4; H332 Aquatic Chronic 4; H413	0,01 - 0,099
Alkenyl amine	1213789-63-9 01-2119473797-19	Acute Tox. 4; H302 Asp. Tox. 1; H304 Skin Corr. 1; H314 STOT SE 3; H335 STOT RE 2; H373 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10	0,01 - 0,099

For explanation of abbreviations see section 16.

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SECTION 4: First aid measures

4.1 Description of first aid measures

Protection of first-aiders : When administering first aid, ensure that you are wearing the

appropriate personal protective equipment according to the

incident, injury and surroundings.

If inhaled : No treatment necessary under normal conditions of use.

If symptoms persist, obtain medical advice.

In case of skin contact : Remove contaminated clothing. Flush exposed area with wa-

ter and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.

In case of eye contact : Flush eye with copious quantities of water.

Remove contact lenses, if present and easy to do. Continue

rinsing.

If persistent irritation occurs, obtain medical attention.

If swallowed : In general no treatment is necessary unless large quantities

are swallowed, however, get medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Oil acne/folliculitis signs and symptoms may include formation

of black pustules and spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhoea.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Notes to doctor/physician:

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Foam, water spray or fog. Dry chemical powder, carbon diox-

ide, 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

Specific hazards during fire-

fighting

Hazardous combustion products may include:

A complex mixture of airborne solid and liquid particulates and

gases (smoke).

Carbon monoxide may be evolved if incomplete combustion

occurs.

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Unidentified organic and inorganic compounds.

5.3 Advice for firefighters

Special protective equipment :

for firefighters

Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to

relevant Standards (e.g. Europe: EN469).

Specific extinguishing meth-

ods

Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : 6.1.1 For non emergency personnel:

Avoid contact with skin and eyes. 6.1.2 For emergency responders: Avoid contact with skin and eyes.

6.2 Environmental precautions

Environmental precautions : Use appropriate containment to avoid environmental contami-

nation. 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

Methods for 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.

6.4 Reference to other sections

For guidance on selection of personal protective equipment see Section 8 of this Safety Data Sheet., For guidance on disposal of spilled material see Section 13 of this Safety Data Sheet.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures : Use local exhaust ventilation if there is risk of inhalation of

vapours, mists or aerosols.

Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this

material.

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Advice on 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. Properly dispose of any contaminated rags or cleaning mate-

rials in order to prevent fires.

Product Transfer : Proper grounding and bonding procedures should be used

during all bulk transfer operations to avoid static accumulation.

7.2 Conditions for safe storage, including any incompatibilities

Storage class (TRGS 510) : 10, Combustible liquids

Further information on stor-

age stability

Keep container tightly closed and in a cool, well-ventilated

place.

Use properly labeled and closable containers.

Store at ambient temperature.

Refer to section 15 for any additional specific legislation cov-

ering the packaging and storage of this product.

Packaging material : Suitable material: For containers or container linings, use mild

steel or high density polyethylene.

Unsuitable material: PVC.

Container Advice : Polyethylene containers should not be exposed to high tem-

peratures because of possible risk of distortion.

7.3 Specific end use(s)

Specific use(s) : Not applicable

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Oil mist, mineral	Not As- signed	TWA (inhalable fraction)	5 mg/m3	US. ACGIH Threshold Limit Values

Biological occupational exposure limits

No biological limit allocated.

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8.2 Exposure controls

Engineering measures

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.

General Information:

Define procedures for safe handling and maintenance of controls.

Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.

Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.

Drain down system prior to equipment break-in or maintenance.

Retain drain downs in sealed storage pending disposal or subsequent recycle.

Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

Personal protective equipment

The provided information is made in consideration of the PPE directive (Council Directive 89/686/EEC) and the CEN European Committee for Standardisation (CEN) standards.

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

Eye protection : If material is handled such that it could be splashed into eyes,

protective eyewear is recommended. Approved to EU Standard EN166.

Hand protection

Remarks : 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, 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. For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For

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> short-term/splash protection we recommend the same but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model.

Skin and body protection Skin protection is not ordinarily required beyond standard

work clothes.

It is good practice to wear chemical resistant gloves.

No respiratory protection is ordinarily required under normal Respiratory protection

conditions of use.

In accordance with good industrial hygiene practices, precau-

tions 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 appro-

priate combination of mask and filter.

Select a filter suitable for combined particulate/organic gases and vapours [Type A/Type P boiling point > 65°C (149°F)]

meeting EN14387 and EN143.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state Liquid at room temperature.

Colour light brown

Odour Slight hydrocarbon

Odour Threshold Data not available

-24 °C pour point

Method: ISO 3016

Melting / freezing point Data not available

Initial boiling point and boiling : > 280 °Cestimated value(s)

range

Flammability

Flammability (solid, gas) : Not applicable

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> Flammability (liquids) Not classified as flammable but will burn.

Lower explosion limit and upper explosion limit / flammability limit

Upper explosion limit /

upper flammability limit

Typical 10 %(V)

Lower explosion limit /

Lower flammability limit

Typical 1 %(V)

Flash point : 225 °C

Method: ISO 2592

Auto-ignition temperature : > 320 °C

Decomposition temperature

Decomposition tempera-

Data not available

ture

рΗ Not applicable

Viscosity

Viscosity, dynamic Data not available

Viscosity, kinematic 68 mm2/s (40,0 °C)

Method: ISO 3104

8,6 mm2/s (100 °C) Method: ISO 3104

Solubility(ies)

Water solubility negligible

Solubility in other solvents Data not available

Partition coefficient: n-

log Pow: > 6 octanol/water

(based on information on similar products)

: < 0,5 Pa (20 °C) Vapour pressure

estimated value(s)

Relative density 0,879 (15 °C)

Density 879 kg/m3 (15,0 °C)

Method: ISO 12185

Relative vapour density

estimated value(s)

Particle characteristics

Particle size Data not available

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9.2 Other information

Explosives : Classification Code: Not classified

Oxidizing properties : Data not available

Flammability (liquids) : Not classified as flammable but will burn.

Evaporation rate : Data not available

Conductivity : This material is not expected to be a static accumulator.

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.

No hazardous reaction is expected when handled and stored according to provisions

10.3 Possibility of hazardous reactions

Hazardous reactions : Reacts with strong oxidising agents.

10.4 Conditions to avoid

Conditions to avoid : Extremes of temperature and direct sunlight.

10.5 Incompatible materials

Materials to avoid : Strong oxidising agents.

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of : Skin and eye contact are the primary routes of

exposure

Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.

Acute toxicity

Product:

Acute oral toxicity : LD50 (rat): > 5.000 mg/kg

Remarks: Based on available data, the classification criteria

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are not met. Low toxicity

Acute inhalation toxicity : Remarks: Based on available data, the classification criteria

are not met.

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg

Remarks: Based on available data, the classification criteria

are not met. Low toxicity

Skin corrosion/irritation

Product:

Remarks : Based on available data, the classification criteria are not met.

Slightly irritating to skin.

Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil

acne/folliculitis.

Serious eye damage/eye irritation

Product:

Remarks : Based on available data, the classification criteria are not met.

Slightly irritating to the eye.

Respiratory or skin sensitisation

Product:

Remarks : For respiratory and skin sensitisation:

Based on available data, the classification criteria are not met.

Not a sensitiser.

Germ cell mutagenicity

Product:

Genotoxicity in vivo : Remarks: Based on available data, the classification criteria

are not met. Non mutagenic

Germ cell mutagenicity- As-

sessment

This product does not meet the criteria for classification in

categories 1A/1B.

Carcinogenicity

Product:

Remarks : Based on available data, the classification criteria are not met.

Not a carcinogen.

Remarks : Product contains mineral oils of types shown to be non-

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carcinogenic in animal skin-painting studies.

Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC).

Carcinogenicity - Assess-

ment

This product does not meet the criteria for classification in

categories 1A/1B.

Material	GHS/CLP Carcinogenicity Classification
Highly refined mineral oil	No carcinogenicity classification.

Reproductive toxicity

Product:

Effects on fertility

Remarks: Based on available data, the classification criteria are not met., Not a developmental toxicant., Does not impair

fertility.

Reproductive toxicity - As-

sessment

This product does not meet the criteria for classification in

categories 1A/1B.

STOT - single exposure

Product:

Remarks : Based on available data, the classification criteria are not met.

STOT - repeated exposure

Product:

Remarks : Based on available data, the classification criteria are not met.

Aspiration toxicity

Product:

Based on available data, the classification criteria are not met., Not an aspiration hazard.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components consid-

ered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

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Further information

Product:

Remarks : Used oils may contain harmful impurities that have accumu-

lated 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.

Remarks : Slightly irritating to respiratory system.

Remarks : Classifications by other authorities under varying regulatory

frameworks may exist.

Remarks : Unless indicated otherwise, the data presented is representa-

tive of the product as a whole, rather than for individual com-

ponent(s).

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : Remarks: LL/EL/IL50 > 10 <= 100 mg/l

Harmful

Toxicity to daphnia and other :

aquatic invertebrates

Remarks: LL/EL/IL50 > 10 <= 100 mg/l

Harmful

Toxicity to algae/aquatic plants : Remarks: LL/EL/IL50 > 10 <= 100 mg/l

Harmful

Toxicity to fish (Chronic tox-

icity)

Remarks: Data not available

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

Remarks: Data not available

Toxicity to microorganisms

Remarks: Data not available

Components:

Butylated hydroxytoluene:

Toxicity to fish : LL50 (Oryzias latipes (Orange-red killifish)): 1,1 mg/l

Exposure time: 96 h

Method: Regulation (EC) No. 440/2008, Annex, C.1

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aquatic invertebrates

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 0,48 mg/l

Exposure time: 48 h

Method: Test(s) equivalent or similar to OECD Guideline 202

M-Factor (Acute aquatic tox- : 1

Toxicity to fish (Chronic tox-

icity)

: NOEC: 0,53 mg/l Exposure time: 30 d

Species: Oryzias latipes (Orange-red killifish)

Method: Test(s) equivalent or similar to OECD Guideline 210

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC: 0,069 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

Method: Test(s) equivalent or similar to OECD Guideline 211

M-Factor (Chronic aquatic

toxicity)

Alkenyl amine:

M-Factor (Acute aquatic tox-

icity)

M-Factor (Chronic aquatic

toxicity)

: 10

12.2 Persistence and degradability

Product:

: Remarks: Not readily biodegradable. Biodegradability

Major constituents are inherently biodegradable, but contains com-

ponents that may persist in the environment.

Components:

Butylated hydroxytoluene:

Biodegradability Exposure time: 62 d

Method: OECD Test Guideline 309 Remarks: Degradation half life

5.65 days

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Contains components with the potential to bioaccumulate.

12.4 Mobility in soil

Product:

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Mobility : Remarks: Liquid under most environmental conditions., If it

enters soil, it will adsorb to soil particles and will not be mo-

bile.

Remarks: Floats on water.

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This mixture does not contain any REACH registered sub-

stances that are assessed to be a PBT or a vPvB..

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to

have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:

Additional ecological information

Does not have ozone depletion potential, photochemical ozone crea-

tion potential or global warming potential.

Product is a mixture of non-volatile components, which will not be released to air in any significant quantities under normal conditions

of use.

Poorly soluble mixture.

Causes physical fouling of aquatic organisms.

Mineral oil does not cause chronic toxicity to aquatic organisms at

concentrations less than 1 mg/l.

Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : 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 meth-

ods in compliance with applicable regulations.

Do not dispose into the environment, in drains or in water

courses.

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Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment. Waste, spills or used product is dangerous waste.

Waste arising from a spillage or tank cleaning should be disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand. Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater contamination.

MARPOL - see International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) which provides technical aspects at controlling pollutions from ships.

Contaminated packaging : Dispose in accordance with prevailing regulations, preferably

to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand. Disposal should be in accordance with applicable regional,

national, and local laws and regulations.

Local legislation

Waste catalogue

EU Waste Disposal Code (EWC):

Waste Code :

13 02 05*

Remarks : Disposal should be in accordance with applicable regional,

national, and local laws and regulations.

Classification of waste is always the responsibility of the end

user.

SECTION 14: Transport information

14.1 UN number or ID number

ADN : Not regulated as a dangerous good
ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.2 UN proper shipping name

ADN : Not regulated as a dangerous good

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ADR Not regulated as a dangerous good RID Not regulated as a dangerous good IMDG Not regulated as a dangerous good IATA Not regulated as a dangerous good

14.3 Transport hazard class(es)

ADN : Not regulated as a dangerous good **ADR** Not regulated as a dangerous good RID Not regulated as a dangerous good **IMDG** Not regulated as a dangerous good **IATA** Not regulated as a dangerous good

14.4 Packing group

ADN : Not regulated as a dangerous good **CDNI Inland Water Waste** : NST 3411 Mineral Lubricating Oils

Agreement

ADR Not regulated as a dangerous good RID Not regulated as a dangerous good **IMDG** Not regulated as a dangerous good **IATA** Not regulated as a dangerous good

14.5 Environmental hazards

ADN : Not regulated as a dangerous good **ADR** Not regulated as a dangerous good RID Not regulated as a dangerous good **IMDG** Not regulated as a dangerous good

14.6 Special precautions for user

Remarks Special Precautions: Refer to Section 7, Handling & Storage,

for special precautions which a user needs to be aware of or

needs to comply with in connection with transport.

14.7 Maritime transport in bulk according to IMO instruments

MARPOL Annex 1 rules apply for bulk shipments by sea.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on

mixtures and articles (Annex XVII)

: Not applicable the market and use of certain dangerous substances,

REACH - List of substances subject to authorisation : Product is not subject to Authorisa-

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(Annex XIV) tion under REACH.

Water hazard class (Germa- : WGK 1 slightly hazardous to water

ny) Remarks: Classification according to AwSV, Annex 1 (5.2)

Volatile organic compounds : Volatile organic compounds (VOC) content: 0 %

Other regulations:

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

Technische Anleitung Luft: Product not listed by name. Observe section 5.2.5 in connection with section 5.4.9

Product is subject Betriebs-Sicherheits-Verordnung (BetrSichV).

Compliance with paragraph 22 of Youth Employment Law.

Take note of Law on the protection of mothers at work, in education and in studies (Maternity Protection Act - MuSchG).

The components of this product are reported in the following inventories:

REACH : Not established.

TSCA : All components listed.

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: Other information

Full text of H-Statements

H302 : Harmful if swallowed.

H304 : May be fatal if swallowed and enters airways. H314 : Causes severe skin burns and eye damage.

H315 : Causes skin irritation.

H317 : May cause an allergic skin reaction.

H332 : Harmful if inhaled.

H335 : May cause respiratory irritation.

H373 : May cause damage to organs through prolonged or repeated

exposure.

H400 : Very toxic to aquatic life.

H410 : Very toxic to aquatic life with long lasting effects.H413 : May cause long lasting harmful effects to aquatic life.

Full text of other abbreviations

Acute Tox. : Acute toxicity

Aquatic Acute : Short-term (acute) aquatic hazard Aquatic Chronic : Long-term (chronic) aquatic hazard

Asp. Tox. : Aspiration hazard Skin Corr. : Skin corrosion

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Skin Irrit. : Skin irritation
Skin Sens. : Skin sensitisation

STOT RE : Specific target organ toxicity - repeated exposure STOT SE : Specific target organ toxicity - single exposure

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA -European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI -Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Training advice : Provide adequate information, instruction and training for op-

erators.

Other information : A vertical bar (|) in the left margin indicates an amendment

from the previous version.

Sources of key data used to compile the Safety Data

Sheet

The quoted data are from, but not limited to, one or more sources of information (e.g. toxicological data from Shell Health Services, material suppliers' data, CONCAWE, EU

IUCLID date base, EC 1272 regulation, etc).

Classification of the mixture:

Classification procedure:

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Aquatic Chronic 3 H412 Expert judgement and weight of evi-

dence determination.

Identified Uses according to the Use Descriptor System

Uses - Worker

Title : General use of lubricants and greases in vehicles or machin-

ery.- Industrial

Uses - Worker

Title : General use of lubricants and greases in vehicles or machin-

ery.- Professional

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.

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Exposure Scenario - Worker

Exposure Scenario - Worker	
30000000194	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	General use of lubricants and greases in vehicles or machin- ery Industrial
Use Descriptor	Sector of Use: SU3 Process Categories: PROC 1, PROC 2, PROC 8b, PROC 9 Environmental Release Categories: ERC4, ERC7, ATIEL- ATC SPERC 4.Bi.v1
Scope of process	Covers general use of lubricants and greases in vehicles or machinery in closed systems. Includes filling and draining of containers and operation of enclosed machinery (including engines) and associated maintenance and storage activities.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES	
Additional Information	No exposure assessment presented for human health.	
Section 2.1	Control of Worker Exposure	
Product Characteristics		
Contributing Scenarios	Risk Management Measures	
Section 2.2	Control of Environmental Exposure	
Amounts Used		
EU tonnage (tonnes per year		2,63E+03
Fraction of EU tonnage used		0,1
Fraction of Regional tonnage		0,1
Frequency and Duration of	Use	
Emission Days (days/year):		300
	influenced by risk management	
Local freshwater dilution factor:		10
Local marine water dilution factor:		100
	ons affecting Environmental Exposure	
Negligible wastewater emissions as process operates without water		
contact.		
Release fraction to air from process (after typical onsite RMMs) :		5,00E-05
Release fraction to wastewater from process (after typical onsite		2,00E-11
RMMs and before (municipal) sewage treatment plant):		
Release fraction to soil from process (after typical onsite RMMs):		0
	neasures at process level (source) to pr	event release
Common practices vary across sites thus conservative process re-		
lease estimates used. Technical onsite conditions and measures to reduce or limit discharges, air emis-		<u> </u>
	s and measures to reduce or limit disch	arges, air emis-
sions and releases to soil	a typical removal officionary of (0/)	70
Treat air emission to provide a typical removal efficiency of (%)		70
Prevent discharge of undissolved substance to or recover from onsite wastewater.		
User sites are assumed to be	e provided with oil/water separators or	

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equivalent and for waste water to be discharged via public sewer sys-	
tem.	
Organisational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils.	
Sludge should be incinerated, contained or reclaimed.	
Conditions and Measures related to municipal sewage treatment p	lant
Estimated substance removal from wastewater via domestic sewage	2,00E-11
treatment (%)	
Assumed domestic sewage treatment plant flow (m3/d)	2,00E+03
Maximum allowable site quantity (MSafe) based on OCs and RMMs	6,328374E+05
as above (kg/dav):	

Conditions and Measures related to external treatment of waste for disposal

External treatment and disposal of waste should comply with applicable local and/or regional regulations.

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or regional regulations.

SECTION 3	EXPOSURE ESTIMATION
Section 3.1 - Health	
No exposure assessment presented for human health.	

Section 3.2 - Environment

Used ECETOC TRA model.

SECTION 4 GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO	
Section 4.1 - Health	
No exposure assessment presented for human health.	

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org).

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

For further information see www.ATIEL.org/REACH_GES.

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Exposure Scenario - Worker

30000000197	orno.
30000000197	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	General use of lubricants and greases in vehicles or machin- ery Professional
Use Descriptor	Sector of Use: SU22 Process Categories: PROC 1, PROC 2, PROC 8a, PROC 8b, PROC 20 Environmental Release Categories: ERC9a, ERC9b, ATIEL-ATC SPERC 9.Bp.v1
Scope of process	Covers general use of lubricants and greases in vehicles or machinery in closed systems. Includes filling and draining of containers and operation of enclosed machinery (including engines) and associated maintenance and storage activities.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES	
Additional Information	No exposure assessment presented for	or human health.
Section 2.1	Control of Worker Exposure	
Product Characteristics		
Contributing Scenarios	Risk Management Measures	
Section 2.2	Control of Environmental Exposure	
Amounts Used		
EU tonnage (tonnes per year):	5,39E+03
Fraction of EU tonnage used	in region:	0,1
Fraction of Regional tonnage	used locally:	0,1
Frequency and Duration of	Use	
Emission Days (days/year):		365
Environmental factors not	influenced by risk management	
Local freshwater dilution factor	or:	10
Local marine water dilution factor: 100		100
	ns affecting Environmental Exposure	
Negligible wastewater emissi contact.	ons as process operates without water	
Release fraction to air from p	rocess (after typical onsite RMMs) :	1,00E-04
Release fraction to wastewater from process (after typical onsite 5,00E-04 RMMs and before (municipal) sewage treatment plant):		5,00E-04
Release fraction to soil from	process (after typical onsite RMMs):	1E-03
Technical conditions and n	neasures at process level (source) to	prevent release
	ss sites thus conservative process re-	
lease estimates used.		
Technical onsite conditions	s and measures to reduce or limit disc	charges, air emis-
sions and releases to soil		
	lved substance to or recover from onsite)
wastewater.		
Organisational measures to	prevent/limit release from site	

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Do not apply industrial sludge to natural soils.

Sludge should be incinerated, contained or reclaimed.

Conditions and Measures related to municipal sewage treatment plant		
Estimated substance removal from wastewater via domestic sewage	5,00E-04	
treatment (%)		
Assumed domestic sewage treatment plant flow (m3/d)	2,00E+03	
Maximum allowable site quantity (MSafe) based on OCs and RMMs	1,5925E+03	
as above (kg/day):		

Conditions and Measures related to external treatment of waste for disposal

External treatment and disposal of waste should comply with applicable local and/or regional regulations.

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or regional regulations.

SECTION 3	EXPOSURE ESTIMATION
Section 3.1 - Health	
No exposure assessment presented for human health.	

Section 3.2 - Environment

Used ECETOC TRA model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO
Section 4.1 - Health	
No exposure assessment presented for human health.	

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org).

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