

1. Identification of the substance and of the supplier

1.1 Product identifiers

Product name : DUCKHAMS ZIRCON Z100 ANTI-WEAR

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

Identified uses : Lubricating oil

1.3 Details of the supplier of the safety data sheet

Supplier : Duckhams Energy Co.,Ltd. (Head office)
55 Building 33 Space Tower B Room 601 Soi Pradiphat 17, Pradiphat Road,
Phyathai, Phyathai, Bangkok 10400

Hotline : (097) 926 3855

E-mail : Technical@duckhams.co.uk

2. Hazards identification

2.1 Classification of the substance or mixture

Skin corrosion / Irritation Category 3
Serious eye damage / Eye irritation Category 2B

2.2 Label elements

Pictogram No

Signal word Warning

Hazard statement(s) H316:Causes mild skin irritation
H320:Caused eye irritation

Precautionary statement(s)

Prevention P264:Wash thoroughly after handling
Response P305+P351+P338:If in eye: Rinse cautiously with water for several minutes, Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313:If skin irritation occurs: Get medical advise/attention.
P337+P313:If eye irritation persists: Get medical advice/attention

2.3 Other hazards : No data available

3. Composition/Information on ingredients

Complex Mixture

| Components | CAS No. | Concentration % |
|---|-------------|-----------------|
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | 64742-65-0 | 95 – 98% |
| Additive | Proprietary | 0 – 2% |

4. First aid measures

4.1 Description of first aid measures

| | |
|---------------------|---|
| Inhalation | Remove person to fresh air. If not breathing, give artificial respiration. Get medical attention. |
| Skin contact | Wash contact areas with soap and water. Launder contaminated clothing before reuse |
| Eye contact | Flush thoroughly with water for at least 15 minutes. If irritation occurs, get medical attention. |
| Ingestion | Do NOT induce vomiting. Get immediate medical attention |

4.2 Most important symptoms and effects, both acute and delayed : Headache, dizziness, nausea, respiratory irritation , Mildly irritating to skin.

4.3 Indication of any immediate medical attention and special treatment needed : Treat symptomatically

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Water spray, foam, dry chemical or carbon dioxide (CO₂).

Inappropriate Extinguishing Media : Straight streams of water

5.2 Special hazards arising from the substance or mixture

Non- flammable mixtures. Elevated temperatures can lead to the formation of irritating vapors.

5.3 Special protective equipment and precautions for fire-fighters

Fire fighters should use self-contained breathing apparatus (SCBA) to fight fires. Use water spray to cool fire exposed surfaces and to protect personnel.

6. Accidental Release Measure

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate area. Avoid contact with spilled material. Half-face or full-face respirator with filter for organic vapor.

6.2 Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and materials for containment and cleaning up

Stop leak if with out risk. Move containers from spill area. Absorb with an inert dry material (e.g. sand). And place in waste disposal container.

7. Handling and Storage

7.1 Precautions for safe handling

Avoid breathing vapor or mist.

Avoid contact with skin and eyes

Wear suitable gloves, coveralls, apron and boots.

Use only with adequate ventilation.

Use non-sparking tools.

Prevent spills and leaks to avoid slipping hazards.

7.2 Conditions for safe storage, including any incompatibilities

Keep containers closed when not in use and check regularly for leaks. Keep in the original container protected from direct sunlight in a dry ,cool and well ventilated areas. Store away from incompatible materials. Avoid excessive long-term storage temperatures to prolong shelf life.

Maximum storage temperature: 60 °C

8. Exposure Controls/Personal Protection

8.1 Control parameters

Mineral Oil 64742-65-0

ACGIH TLV-TWA 5 mg/m³

ACGIH TLV-STEL 10 mg/m³

OSHA PEL-TWA 5 mg/m³

8.2 Appropriate engineering controls

Ventilation may be used to control or reduce airborne concentrations.

8.3 Personal protective equipment

Eye/face protection : Goggle with face shields are recommended.

Skin and Body protection : Wear gloves made from nitrile rubber., Chemical / oil resistant clothing

Respiratory protection : Wear organic vapor respirator.

8.4 Work / Hygienic Practices:

When using do not eat drink or smoke . Wash hand prior to eating ,drinking , smoking or using the toilet.

Wash contaminated clothing and other protective equipment before reusing.

9. Physical and Chemical Properties

| | |
|--|---------------------------------|
| a) Appearance | Bright&Clear |
| b) Odour | Characteristic |
| c) Odour Threshold | No data available |
| d) pH | No data available |
| e) Melting point/freezing point | No data available |
| f) Initial boiling point and boiling range | No data available |
| g) Flash point | 254 °C |
| h) Evaporation rate | No data available |
| i) Flammability (solid, gas) | No data available |
| j) Upper/lower flammability or explosive limits | No data available |
| k) Vapour pressure | No data available |
| l) Vapour density | No data available |
| m) Relative density | No data available |
| n) Water solubility | Insoluble |
| o) Partition coefficient: noctanol/water log Pow | No data available |
| p) Auto ignition temperature | No data available |
| q) Decomposition temperature | No data available |
| r) Viscosity | 99.25 mm ² /s @40 °C |

10. Stability and Reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions

10.3 Possibility of hazardous reactions

No polymerization

10.4 Conditions to avoid

Excessive heat and sources of ignition

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

Does not decompose at ambient temperatures.
If high temperature, material will decompose to Aldehydes, sulphur oxides and oxide of carbon

11. Toxicological Information

11.1 Information on the likely routes of exposure

- Inhalation : Prolonged breathing of vapors can cause headache, dizziness, nausea, respiratory irritation or chemical pneumonitis.
- Skin contact : Slightly irritating.
- Eye contact : Slightly Irritating.
- Ingestion : Can cause stomach ache and vomiting.

11.2 Symptoms related to the physical, chemical and toxicological characteristics;

Main hazard, if ingested, is aspiration into the lungs and subsequent pneumonitis. Heating can generate vapors that may cause respiratory irritation, nausea and headaches. Inhalation hazard at room temperature is unlikely due to the low volatility of this product.

11.3 Delayed and immediate effects and also chronic effects from short and long term exposure;

Immediate effects

May cause respiratory irritation, headache, nausea . Mildly irritating to skin and eyes.

Chronic effects :

Prolonged and repeated contact with skin can cause deflating and drying of the skin resulting in skin irritation and dermatitis.

11.4 Numerical measures of toxicity

| Components | Acute toxicity |
|---|-------------------------------------|
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | LD50 (oral rat) :> 5000 mg/kg |
| | LD50 (Dermal rabbit) :> 5000 mg/kg |
| | LC50 (Inhalation rat) :>2.4 mg/l |

Classification of Health Hazards

| | |
|--|--|
| Acute oral toxicity estimate | Not classified |
| Acute dermal toxicity estimate | Not classified |
| Acute inhalation toxicity estimate | Not classified |
| Skin corrosion / irritation | Category 3 |
| Serious eye damage/eye irritation | Category 2B |
| Respiratory or skin sensitization | Not sensitization |
| Germ cell mutagenicity | Not classified |
| Carcinogenicity | Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC) |
| Reproductive toxicity | No data available |
| Specific target organ toxicity - single exposure | No data available |
| Specific target organ toxicity - repeated exposure | No data available |
| Aspiration hazard | No data available |

12. Ecological Information

12.1 Ecotoxicity

| Components | Result |
|---|--|
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | LC50 Fish (Salmo gairdneri) > 1000 mg/l (96 h) |
| | EC50 Crustacea (Daphnia magna) > 1000 mg/l (48 h) |
| | ErC50 Algae (Scenedesmus subspicatus) > 1000 mg/l (96 h) |
| | NOEC Fish (Pimephales promelas) > 5000 mg/l (7 days) |
| | NOEC Crustacea (Ceriodaphnia sp.) 552 mg/l (7 days) |

Acute hazards to the aquatic environment estimate : Not classified

Long-term hazards to the aquatic environment estimate : Not classified

- 12.2 Persistence and degradability** No data available
- 12.3 Bio accumulative potential** No data available
- 12.4 Mobility in soil** Move under natural forces to the groundwater
- 12.5 Other adverse effects** Long term effect to the aquatic environment.

13. Disposal Considerations

13.1 Waste treatment methods

Disposal as an industrial waste in a manner acceptable to good waste management practice and in compliance with applicable local, state and federal regulations.

13.2 Contaminated packaging

Do not attempt to refill or clean containers since residue is difficult to remove. All containers should be disposed of in accordance with governmental regulations.

14. Transport Information

- 14.1 UN number** No data available
- 14.2 UN proper shipping name** No data available
- 14.3 Transport hazard class(es)** No regulated
- 14.4 Packaging group** No data available
- 14.5 Environmental hazards** No data available
- 14.6 Transport in bulk** No data available
- 14.7 Special precautions for user** No data available

15. Regulatory Information

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

GLOBAL INVENTORIES

| component | USA (TSCA) | EU (EINECS) | AUS (AICS) | JAP (ENCS) | KOR (ELCI) | CHN (IECSC) | PHLP (PICCS) | CAN (DSL/ NDSL) | NZ (NZIOC) |
|---|---------------|----------------|---------------|---------------|---------------|----------------|-----------------|-----------------------|---------------|
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

15.2 Chemical Safety Assessment No data available

16. Other Information

Date 11 March 2020

Prepared by: Duckhams Energy Co.,Ltd.

The information provided on this SDS 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 guide for safe handling, use, processing, storage,

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