



SAFETY DATA SHEET

Aspen 4

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

Date issued 15.04.2014

1.1. Product identifier

Product name Aspen 4

Synonyms Aspen 4t

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

Use of the substance/preparation Fuel for petrol engines.

Relevant identified uses
 SU1 Agriculture, forestry, fishery
 PC13 Fuels
 PROC16 Using material as fuel sources, limited exposure to unburned product to be expected Industrial or non-industrial setting;

The chemical can be used by the general public Yes

1.3. Details of the supplier of the safety data sheet

Distributor

Company name Anglo American Oil Company Ltd

Office address 3 Holly Close

Postal address Sandford, Wareham

Postcode BH20 7QE

City Dorset

Country United Kingdom

Tel +44 1929 551557

Fax +44 1929 551567

E-mail anders@aaoil.co.uk

Website <http://www.aaoil.co.uk>

Manufacturer

Company name Lantmännen Aspen AB

Postal address Iberovägen 2

Postcode SE-438 54

City Hindås

Country Sweden

Tel +46 (0)301-23 00 00

E-mail info@aspen.se

Website <http://www.en.aspen.se>

Contact person Pontus Kristensson, +46 (0)708-23 50 20

1.4. Emergency telephone number

Emergency telephone National Poisons Information Centre:01-8092566

SECTION 2: Hazards identification

2.1. Classification of substance or mixture

Classification according to 67/548/EEC or 1999/45/EC Xn,F; R11,R38,R53,R65,R67

Classification according to Flam. Liq. 1

| | |
|---|--|
| Regulation (EC) No 1272/2008 [CLP/GHS] | Asp. tox 1 Skin Irrit. 2 STOT SE3 Aquatic Chronic 4 H224 H304 H315 H336 H413 |
|---|--|

2.2. Label elements

Hazard Pictograms (CLP)



| | |
|--------------------------|---|
| Signal word | Danger |
| Hazard statements | H224 Extremely flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H336 May cause drowsiness or dizziness. H413 May cause long lasting harmful effects to aquatic life. |
| Precautionary statements | P102 Keep out of reach of children. P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking. P260 Do not breathe dust/fume/gas/mist/vapours/spray. P262 Do not get in eyes, on skin, or on clothing. P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor/ . P331 Do NOT induce vomiting. P501 Dispose of contents/container according to local regulations. |
| Child-resistant | Yes |
| Tactile warnings | Yes |

2.3. Other hazards

| | |
|---------------|---|
| Health effect | In high concentrations, vapours and aerosol mists have a narcotic effect and may cause headache, fatigue, dizziness and nausea. |
|---------------|---|

SECTION 3: Composition/information on ingredients

3.2. Mixtures

| Substance | Identification | Classification | Contents |
|---|---|--|-----------|
| Naphtha (petroleum), full-range alkylate, butane-contg. | CAS no.: 68527-27-5 EC no.: 271-267-0 Registration number: 01-2119471477-29-XXXX | Xn,F,N; R11,R38,R51/53, R65,R67 Flam. Liq. 1; H224; Asp. tox 1; H304; Skin Irrit. 2; H315; STOT SE3; H336; Aquatic Chronic 2; H411; | 85 - 95 % |
| Naphtha (petroleum), isomerization | CAS no.: 64741-70-4 EC no.: 265-073-5 Index no.: 649-277-00-5 Registration number: 01-2119480399-24-XXXX | Xn,F+,N; R12,R38, R51/53,R65,R67 Flam. Liq. 1; H224 Asp. tox 1; H304 Skin Irrit. 2; H315 STOT SE3; H336 Aquatic Chronic 2; H411 | 5 - 15 % |
| Column headings | CAS no. = Chemical Abstracts Service; EU (Einecs or Elincs number) = European inventory of Existing Commercial Chemical Substances; Ingredient name = Name as specified in the substance list (substances that are not included in the substance list must be translated, if possible). Contents given in; %, %wt/wt, %vol/wt, %vol/vol, mg/m3, ppb, ppm, weight%, vol% | | |
| HH/HF/HE | T+ = Very toxic, T = Toxic, C = Corrosive, Xn = Harmful, Xi = Irritating, E | | |

| | |
|--------------------|--|
| | = Explosive, O = Oxidizing, F+ = Extremely flammable, F = Very flammable, N = Environmental hazard |
| Remarks, substance | Benzene level lower than 0,1 %. The classification of the components is not supported by test results on the mixture. |

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|--------------|---|
| General | Fire and explosion: Leave the zone of danger immediately and evacuate unnecessary personnel. Bring injured persons out of the zone of danger immediately. Beware of danger of shock in seemingly not-injured persons. |
| Inhalation | Fresh air and rest. |
| Skin contact | Remove contaminated clothing immediately and wash skin with soap and water. |
| Eye contact | Immediately rinse with water for several minutes. Make sure to remove any contact lenses from the eyes before rinsing. |
| Ingestion | DO NOT induce vomiting if swallowed chemical is dissolved in petroleum-based material. Danger of aspiration and development of chemical pneumonia. Get medical attention. |

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

| | |
|----------------------------------|------------------------|
| Information for health personnel | Treat Symptomatically. |
|----------------------------------|------------------------|

4.3. Indication of any immediate medical attention and special treatment needed

| | |
|--|--------------------------|
| Medical monitoring for delayed effects | No recommendation given. |
| Specific details on antidotes | Not applicable. |

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|------------------------------|--|
| Suitable extinguishing media | Extinguish with foam, carbon dioxide or dry powder. Do not use water jet as an extinguisher, as this will spread the fire. |
|------------------------------|--|

5.2. Special hazards arising from the substance or mixture

| | |
|----------------------------|-------------------------------------|
| Fire and explosion hazards | Highly flammable liquid and vapour. |
|----------------------------|-------------------------------------|

5.3. Advice for firefighters

| | |
|--------------------------|--|
| Fire fighting procedures | Containers close to fire should be removed immediately or cooled with water. Avoid water in straight hose stream; will scatter and spread fire. Be aware of risk of fire re-starting, and risk of explosion. |
|--------------------------|--|

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

| | |
|------------------------------|---|
| Personal protection measures | Do not smoke, use open fire or other sources of ignition. Ventilate well. In case of inadequate ventilation, use respiratory protection. Take precautionary measures against static discharges. |
|------------------------------|---|

6.2. Environmental precautions

| | |
|--------------------------------------|---|
| Environmental precautionary measures | Avoid discharge into drains, water courses or onto the ground. Contain spillages with sand, earth or any suitable adsorbent material. Contact local authorities in case of spillage to drain/aquatic environment. |
|--------------------------------------|---|

6.3. Methods and material for containment and cleaning up

| | |
|-----------------|--|
| Cleaning method | Remove sources of ignition. Beware of the explosion danger. Absorb in vermiculite, dry sand or earth and place into containers. Cover large spillages with foam. |
|-----------------|--|

6.4. Reference to other sections

| | |
|--------------------|-------|
| Other instructions | None. |
|--------------------|-------|

SECTION 7: Handling and storage

7.1. Precautions for safe handling

| | |
|----------|---|
| Handling | Flammable/combustible - Keep away from oxidisers, heat and flames. Take precautionary measures against static discharges. |
|----------|---|

7.2. Conditions for safe storage, including any incompatibilities

| | |
|------------------------------|---|
| Storage | Store in tightly closed original container in a well-ventilated place. Store at temperature below 50°C. Flammable liquid storage. |
| Special risks and properties | Protect electric equipment against sparking in case of risk of explosion. |
| Other Information | Large amounts and storages should be stored in accordance with national regulation on storage of flammable liquids. |
| Conditions To Avoid | Keep away from heat, sparks and open flame. |

Conditions for safe storage

| | |
|---------------------------------|--|
| Advice on storage compatability | Keep flammable liquids away from flammable gas and highly flammable goods. Flammability class: 1 |
|---------------------------------|--|

7.3. Specific end use(s)

| | |
|-----------------|---|
| Specific use(s) | The identified uses for this product are detailed in Section 1.2. |
|-----------------|---|

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| | |
|--|------------------------------|
| Other Information about threshold limit values | OEL Sweden. Alkylate petrol. |
|--|------------------------------|

DNEL / PNEC

| Method of testing | Contents |
|---------------------|--|
| DNEL | Group: Worker Exposure route: Inhalation Exposure frequency: Short term (acute) Critical Component: 68527-27-5 Type of effect: Systemic effect Value: 1300 mg/m3/15 min |
| DNEL | Group: Worker Exposure route: Inhalation Exposure frequency: Long term (repeated) Critical Component: 68527-27-5 Type of effect: Local effect Value: 840 mg/m3/8h |
| Exposure guidelines | Country of origin: Sweden Limit value type: OEL, 8h, 900 mg/m3 Source: AFS 2011:18 |

8.2. Exposure controls

| | |
|-----------------------------------|---------------------------------------|
| Recommended monitoring procedures | Environmental Exposure Controls: VOC. |
|-----------------------------------|---------------------------------------|

Safety signs



Precautionary measures to prevent exposure

| | |
|--|---|
| Technical measures to prevent exposure | Provide adequate general and local exhaust ventilation. |
|--|---|

Respiratory protection

| | |
|------------------------|--|
| Respiratory protection | No specific recommendation made, but respiratory protection may still be |
|------------------------|--|

| | |
|--|---|
| | required under exceptional circumstances when excessive air contamination exists. |
| Recommended type of equipment | Chemical respirator with organic vapour cartridge. |
| Reference to relevant standard | A. |
| Additional respiratory protection measures | All handling to take place in well-ventilated area. |

Hand protection

| | |
|----------------------|--|
| Hand protection | For prolonged or repeated skin contact use suitable protective gloves. |
| Suitable gloves type | Neoprene, nitrile, polyethylene or PVC. |

Eye / face protection

| | |
|----------------|--|
| Eye protection | Wear approved chemical safety goggles where eye exposure is reasonably probable. |
|----------------|--|

Hygiene / Environmental

| | |
|---------------------------|---|
| Specific hygiene measures | Promptly remove non-impervious clothing that becomes wet. DO NOT SMOKE IN WORK AREA! |
|---------------------------|---|

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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|---|--|
| Physical state | Clear liquid. |
| Colour | Colourless. |
| Odour | Kerosene. |
| Comments, pH (as supplied) | Not applicable. |
| Comments, pH (aqueous solution) | Not applicable. |
| Comments, Melting point / melting range | Not applicable. |
| Boiling point / boiling range | Value: 35-195 °C Method of testing: EN ISO 3405 |
| Flash point | Value: < 0 °C |
| Evaporation rate | Value: > 1000 Method of testing: BuAc=100 |
| Lower explosion limit with unit of measurement | 1 vol-% |
| Upper explosion limit with units of measurement | 8 vol-% |
| Vapour pressure | Value: 55-65 kPa Method of testing: EN 13016-1 Test temperature: = 38 °C |
| Vapour density | Value: > 1 Reference gas: Air |
| Specific gravity | Value: 690-720 kg/m ³ Method of testing: EN ISO 12185 |
| Solubility description | Insoluble in water. Very soluble in: Hydrocarbons. |
| Solubility in water | < 100 ppm |
| Partition coefficient: n-octanol/water | Value: 4,3-4,8 |
| Spontaneous combustability | Value: > 300 °C |
| Viscosity | Value: < 1 mm ² /s Test temperature: = 40 °C |

9.2. Other information

Physical hazards

| | |
|-------------------|---|
| Flammable liquids | Yes. |
| Conductivity | Value: = 400 pS/m Method of testing: SS-ISO 6297-1998 Test temperature: = 20 °C |

Gas group IIA.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid Strong oxidising substances.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological Information:

| | |
|-------------|---|
| LD50 oral | Value: > 5000 mg/kg bw Animal test species: Rat Test reference: OECD TG 401 |
| LD50 dermal | Value: > 2000 mg/kg bw Animal test species: Rabbit Test reference: OECD TG 402 |
| LD50 dermal | Value: > 5610 mg/m ³ air Animal test species: Rat Test reference: OECD 403 |

Toxicological data for substances

Other information regarding health hazards

General Risk of chemical pneumonia after aspiration. Prolonged or repeated contact leads to drying of skin. Solvent vapours are hazardous and may cause nausea, sickness and headaches.

Potential acute effects

| | |
|--------------|---|
| Inhalation | In high concentrations, vapours are narcotic and may cause headache, fatigue, dizziness and nausea. |
| Skin contact | Product has a defatting effect on skin. |
| Eye contact | Not Irritating. |
| Ingestion | Harmful: may cause lung damage if swallowed. |
| Irritation | Causes skin irritation. |

Delayed effects / repeated exposure

Sensitisation None.

Carcinogenic, Mutagenic or Reprotoxic

| | |
|------------------------|---|
| Carcinogenicity | No known chronic or acute health risks. |
| Mutagenicity | No known chronic or acute health risks. |
| Teratogenic properties | No known chronic or acute health risks. |
| Reproductive toxicity | No known chronic or acute health risks. |

Symptoms of Exposure

Symptoms of overexposure Mild intoxication (incl. fatigue, lassitude, irritability, headache, nausea).

SECTION 12: Ecological information

12.1. Toxicity

| | |
|------------------------|---|
| Acute aquatic, fish | Value: > 100 mg/l Method of testing: OECD TG no. 203 (2004) Fish, species: Danio rerio Duration: 96h Test reference: Test report 046/13. |
| Acute aquatic, algae | Value: > 100 mg/l Method of testing: OECD TG no. 202 Algae, species: Raphidoceles subcapitata Duration: 72h Test reference: Test report 182/06. |
| Acute aquatic, Daphnia | Value: > 1000 mg/l Method of testing: OECD Tg no. 201 Daphnia, species: Daphnia Magna Duration: 48h Test reference: Test report 31/04. |

12.2. Persistence and degradability

| | |
|-------------------------------|--|
| Comments COD | Not known. |
| Comments, BOD | Not known. |
| Persistence and degradability | Volatile substances are degraded in the atmosphere within a few days. The product is degraded completely by photochemical oxidation. The product has not proven to be degradable under anaerobic conditions. |

12.3. Bioaccumulative potential

| | |
|-------------------------------|--|
| Bioaccumulative potential | Bioaccumulation is unlikely to be significant because of the low water solubility of this product. |
| Bioconcentration factor (BCF) | Value: 4,3-4,8 Method of testing: Log Pow |

12.4. Mobility in soil

| | |
|------------------|--|
| Mobility | The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces. The product is insoluble in water and will spread on the water surface. |
| Water solubility | Value: < 100 ppm |

12.5. Results of PBT and vPvB assessment

| | |
|------------------------|--|
| PBT assessment results | Not Classified as PBT/vPvB by current EU criteria. |
|------------------------|--|

12.6. Other adverse effects

| | |
|---------------------------------|--|
| Other adverse effects / Remarks | WATER HAZARD CLASSIFICATION : 2 (WGK). |
|---------------------------------|--|

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| | |
|---|--|
| Specify the appropriate methods of disposal | Make sure containers are empty before discarding (explosion risk). Vent to atmosphere. |
| Relevant waste regulation | SFS 2011:927 |
| Product classified as hazardous waste | Yes |
| Packaging classified as hazardous waste | No |
| EWC waste code | EWC: 130702 petrol EWC: 150102 plasticpackaging EWC: 150104 metallicpackaging |

SECTION 14: Transport information

14.1. UN number

| | |
|-----------|------|
| ADR | 1203 |
| RID | 1203 |
| IMDG | 1203 |
| ICAO/IATA | 1203 |

14.2. UN proper shipping name

| | |
|-----------|--------|
| ADR | PETROL |
| RID | PETROL |
| IMDG | PETROL |
| ICAO/IATA | PETROL |

14.3. Transport hazard class(es)

| | |
|------------|----|
| ADR | 3 |
| Hazard no. | 33 |
| RID | 3 |
| IMDG | 3 |
| ICAO/IATA | 3 |

14.4. Packing group

| | |
|-----------|----|
| ADR | II |
| RID | II |
| IMDG | II |
| ICAO/IATA | II |

14.5. Environmental hazards

14.6. Special precautions for user

| | |
|----------------------------------|-------------|
| ADR additional information | (D/E) |
| RID Other applicable information | (D/E) |
| IMDG Additional information | -18 C, c.c. |
| EmS | F-E, S-E |

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

SECTION 15: Regulatory information

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

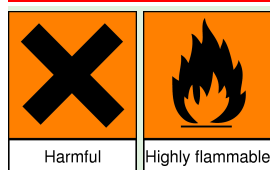
| | |
|-------------------------------|---|
| References (laws/regulations) | Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Dangerous Preparations Directive 1999/45/EC. |
|-------------------------------|---|

15.2. Chemical safety assessment

| | |
|--------------------------------------|----|
| Chemical safety assessment performed | No |
|--------------------------------------|----|

SECTION 16: Other information

Hazard symbol



| | |
|-----------|---|
| R-phrases | R11 Highly flammable. R38 Irritating to skin. R53 May cause long-term |
|-----------|---|

| | |
|--|---|
| | adverse effects in the aquatic environment. R65 Harmful: may cause lung damage if swallowed. R67 Vapours may cause drowsiness and dizziness. |
| S-phrases | S2 Keep out of the reach of children. S23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer). S24 Avoid contact with skin. S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label. S61 Avoid release to the environment. Refer to special instructions/Safety data sheets. S16 Keep away from sources of ignition - No smoking. |
| Supplier's notes | The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user. |
| Classification according to Regulation (EC) No 1272/2008 [CLP/GHS] | ; H224; ; H304; ; H315; ; H336; ; H413; |
| List of relevant R-phrases (under headings 2 and 3). | R67 Vapours may cause drowsiness and dizziness. R12 Extremely flammable. R38 Irritating to skin. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R11 Highly flammable. R65 Harmful: may cause lung damage if swallowed. R53 May cause long-term adverse effects in the aquatic environment. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| List of relevant H-phrases (Section 2 and 3). | H413 May cause long lasting harmful effects to aquatic life. H304 May be fatal if swallowed and enters airways. H224 Extremely flammable liquid and vapour. H336 May cause drowsiness or dizziness. H411 Toxic to aquatic life with long lasting effects. H315 Causes skin irritation. |
| Important data sources used to construct the safety data sheet | Test report 31/04. Aspen 4T, Daphnia magna immobilisation test. Toxicon AB (2004). Test report 182/06. Toxicity testing of Aspen 4T, Algae growth inhibition test. Toxicon AB (2007). Test report 07-25. Evaluation of the aerobic biodegradability of organic compounds 182/06 (Aspen 4T). AnoxKaldnes AB (2007). Examination essay. Diffusion of alkylate petrol during discharge in the environment. Gunilla Henriksson, Annalena Tåmt (2004). Test report 046/13. Aspen 4. Fish, acute toxicity test. Toxicon AB (2013). Kemiska Ämnen. Prevent AB (2013). |
| URL for technical data | http://www.aspen.se |
| Responsible for safety data sheet | Lantmännen Aspen AB |
| Prepared by | Lantmännen Aspen AB |