



SAFETY DATA SHEET

Aspen 2

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

Date issued 15.04.2014

1.1. Product identifier

Product name Aspen 2

Synonyms Aspen 2 Full Range Technology, Aspen 2t

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@aaol.co.uk

Website http://www.aaol.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 %
Fully synthetic two stroke oil			= 2 %
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. The two stroke oil is not classified as dangerous for the health or the environment.

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.
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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.
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5.2. Special hazards arising from the substance or mixture

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

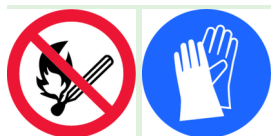
DNEL / PNEC

Method of testing	Contents
DNEL	Group: Worker Exposure route: Inhalation Exposure frequency: Long term (repeated) Critical Component: 68527-27-5 Type of effect: Local effect Value: 840 mg/m3/8h
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
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 Provide adequate general and local exhaust ventilation.

exposure

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.
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Hygiene / Environmental

Specific hygiene measures	Promptly remove non-impervious clothing that becomes wet. DO NOT SMOKE IN WORK AREA!
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SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state	Clear liquid.
Colour	Tan.
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: 35-205 °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.
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Conductivity	Value: < 0,1 uS/cm Method of testing: EN 15938 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.
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10.2. Chemical stability

Stability	Stable under normal temperature conditions and recommended use.
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10.3. Possibility of hazardous reactions

10.4. Conditions to avoid

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

Materials to avoid	Strong oxidising substances.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
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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/m3 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.
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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.
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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).
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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: Raphidocelis 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.
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12.6. Other adverse effects

Other adverse effects / Remarks	WATER HAZARD CLASSIFICATION : 2 (WGK).
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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.
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15.2. Chemical safety assessment

Chemical safety assessment performed	No
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SECTION 16: Other information

Hazard symbol

 Harmful	 Highly flammable	
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	