SAFETY DATA SHEET

ADBLUE

Infosafe No.: HY1DR

ISSUED Date: 18/07/2016

ISSUED by: VIVA ENERGY AUSTRALIA PTY LTD (FORMERLY: SHELL COMPANY OF

AUSTRALIA LTD)

1. IDENTIFICATION

GHS Product Identifier

ADBLUE

Company Name

VIVA ENERGY AUSTRALIA PTY LTD (FORMERLY: SHELL COMPANY OF AUSTRALIA LTD) (ABN 46 004 610 459)

Address

Level 16, 720 Bourke Street Docklands

Victoria 3008 Australia

Telephone/Fax Number

Tel: +61 (0)3 8823 4444 Fax: +61 (0)3 8823 4800

Emergency phone number

1800 651 818 (Australia) / Poisons Information Centre:13 11 26 (Australia)

Recommended use of the chemical and restrictions on use

Additive to be used for injection into diesel exhaust systems.

2. HAZARD IDENTIFICATION

GHS classification of the substance/mixture

Not classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety Regulations, Australia.

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Name	CAS	Proportion
Ingredients determined not to be hazardous, including water		Balance

Preparation Description

Concentrated aqueous solution containing urea.

4. FIRST-AID MEASURES

Inhalation

If inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms develop and/or persist seek medical attention.

Ingestion

Do not induce vomiting. Wash out mouth thoroughly with water. Seek medical attention.

Skin

Wash affected area thoroughly with soap and water. If symptoms develop seek medical attention.

Eve contact

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for

several minutes until all contaminants are washed out completely. If symptoms develop and/or persist seek medical attention.

First Aid Facilities

Eyewash and normal washroom facilities.

Advice to Doctor

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable Extinguishing Media

Do not use water in a jet.

Hazards from Combustion Products

Non combustible material.

Specific Hazards Arising From The Chemical

This product is non combustible. However, following evaporation of aqueous component under fire conditions, the non-aqueous component may decompose and/or burn. When heated, releases ammonia and when heated to decomposition it emits toxic fumes of nitrogen oxides, ammonia and cyanuric acid.

Decomposition Temperature

Decomposes above 135°C.

Precautions in connection with Fire

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures

Wear appropriate personal protective equipment and clothing to prevent exposure. Increase ventilation. If possible contain the spill. Place inert absorbent material onto spillage. Collect the material and place into a suitable labelled container. Do not dilute material but contain. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations. As a water based product, if spilt on electrical equipment the product will cause short-circuits.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid inhalation of vapours and mists, and skin or eye contact. Use only in a well ventilated area. Keep containers sealed when not in use. Prevent the build up of mists or vapours in the work atmosphere. Maintain high standards of personal hygiene i.e. Washing hands prior to eating, drinking, smoking or using toilet facilities.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area, out of direct sunlight. Store in suitable, labelled containers. Keep containers tightly closed. Store away from incompatible materials. Ensure that storage conditions comply with applicable local and national regulations. Protect from freezing.

Recommended Materials

For containers or container linings, use mild steel or high density polyethylene.

Unsuitable Materials

PVC.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limit values

No exposure standards have been established for the mixture. However, over-exposure to some chemicals may result in enhancement of pre-existing adverse medical conditions and/or allergic reactions and should be kept to the least possible levels.

Biological Limit Values

No biological limits allocated.

Appropriate Engineering Controls

Use with good general ventilation. If mists or vapours are produced, local exhaust ventilation should be used.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements.

Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices;

and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye Protection

Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform to relevant regulations. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection

Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Body Protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form

Liquid

Appearance

Colourless liquid.

Colour

Colourless

Odour

Odourless

Decomposition Temperature

Decomposes above 135°C.

Melting Point

Not available

Freezing Point

Not available

Boiling Point

100°C (45% water and will boil at a 100°C)

Solubility in Water

Soluble.

Specific Gravity

Not available

рΗ

9.8 - 10

Vapour Pressure

Not available

Vapour Density (Air=1)

Not available

Evaporation Rate

Not available

Odour Threshold

Not available

Viscosity

Not available

Partition Coefficient: n-octanol/water

Not available

Density

1.090 g/cm³

Flash Point

Not available

Flammability

Non-combustible

Auto-Ignition Temperature

Not available

Flammable Limits - Lower

Not available

Flammable Limits - Upper

Not available

10. STABILITY AND REACTIVITY

Chemical Stability

Stable. Decomposes above 135°C.

Reactivity and Stability

Reacts with incompatible materials.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible materials

Strong oxidising agents.

Hazardous Decomposition Products

Hazardous decomposition products are not expected to form during normal storage. At high temperatures, will decompose to ammonia and carbon dioxide. If burnt, will emit nitrogen oxides, ammonia and cyanuric acid.

Possibility of hazardous reactions

Not available

Hazardous Polymerization

Not available

11. TOXICOLOGICAL INFORMATION

Toxicology Information

The available toxicity data for material given below.

Acute Toxicity - Oral

LD50:(rat): > 5000 mg/kg

Acute Toxicity - Dermal

LD50:(rabbit): > 5000 mg/kg

Ingestion

Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

Inhalation

Inhalation of product vapours may cause irritation of the nose, throat and respiratory system.

Skin

May be irritating to skin. The symptoms may include redness, itching and swelling.

Eye

May be irritating to eyes. The symptoms may include redness, itching and tearing.

Respiratory sensitisation

Not expected to be a respiratory sensitiser.

Skin Sensitisation

Not expected to be a skin sensitiser.

Germ cell mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

Not considered to be a carcinogenic hazard.

Reproductive Toxicity

Not considered to be toxic to reproduction.

STOT-single exposure

Not expected to cause toxicity to a specific target organ.

STOT-repeated exposure

Not expected to cause toxicity to a specific target organ.

Aspiration Hazard

Not expected to be an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The available ecological data is given below.

Persistence and degradability

Readily biodegradable.

Mobility

Large volumes may penetrate soil and could contaminate groundwater.

Bioaccumulative Potential

Not expected to bioaccumulate significantly.

Other Adverse Effects

Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential. Will exert oxygen demand when significant quantities enter watercourses and may cause damage to aquatic life.

Environmental Protection

Prevent this material entering waterways, drains and sewers.

Acute Toxicity - Other Organisms

LL/EL/IL50: > 100 mg/I(LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract).

13. DISPOSAL CONSIDERATIONS

Disposal considerations

The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations.

14. TRANSPORT INFORMATION

Transport Information

Road and Rail Transport (ADG Code):

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code) (7th edition).

Marine Transport (IMO/IMDG):

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Air Transport (ICAO/IATA):

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

U.N. Number

None Allocated

UN proper shipping name

None Allocated

Transport hazard class(es)

None Allocated

IMDG Marine pollutant

No

Transport in Bulk

Not available

Special Precautions for User

Not available

15. REGULATORY INFORMATION

Not classified as Hazardous according to the Globally Harmonised System of classification and labelling of chemicals (GHS) including Work, Health and Safety regulations, Australia.

Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

Poisons Schedule

Not Scheduled

16. OTHER INFORMATION

Date of preparation or last revision of SDS

SDS Reviewed: July 2016 Supersedes: April 2015

References

- Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.
- Standard for the Uniform Scheduling of Medicines and Poisons.
- Australian Code for the Transport of Dangerous Goods by Road & Rail.
- Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
- Workplace exposure standards for airborne contaminants, Safe work Australia.
- American Conference of Industrial Hygienists (ACGIH).
- Globally Harmonised System of classification and labelling of chemicals.

END OF SDS

© Copyright Chemical Safety International Pty Ltd

Copyright in the source code of the HTML, PDF, XML, XFO and any other electronic files rendered by an Infosafe system for Infosafe SDS displayed is the intellectual property of Chemical Safety International Pty Ltd.

Copyright in the layout, presentation and appearance of each Infosafe SDS displayed is the intellectual property of Chemical Safety International Pty Ltd.

The compilation of SDS's displayed is the intellectual property of Chemical Safety International Pty Ltd.

Copying of any SDS displayed is permitted for personal use only and otherwise is not permitted. In particular the SDS's displayed cannot be copied for the purpose of sale or licence or for inclusion as part of a collection of SDS without the express written consent of Chemical Safety International Pty Ltd.