



VULCAN MINE

Standard Operating Procedure Hazardous Substances



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1. PURPOSE

The purpose of this procedure is to outline requirements and to ensure effective management of hazards and risks associated with hazardous substances at the Vulcan Mine. The procedure provides for purchasing, selecting, storing, using, moving, decanting, and disposing of hazardous substances; and, appropriate first aid for a person affected by a hazardous substance.

2. SCOPE

This procedure is applicable to all persons at the Vulcan Mine including employees, contractors and visitors, and is applicable across all Vulcan Mine operations.

The controls within this procedure are mandatory.

3. DEFINITIONS

AS	Australian Standard.
Authorised Person	A person who has the required competencies and who has been appointed by the Site Senior Executive to carry out a designated scope of duties.
CMSHA	Queensland Coal Mining Safety and Health Act (1999).
CMSHR	Queensland Coal Mining Safety and Health Regulation (2017).
CMW	Coal Mine Worker.
Competent Person	Competence for a task at a coal mine is the demonstrated skill and knowledge required to carry out the task to a standard necessary for the safety and health of persons.
EMS	Environmental Management System.
IMS	Integrated Management System.
JHA	Job Hazard Analysis.
HST	Health, Safety and Training
NOHSC	National Standard for the Control of Major Hazard Facilities.
QMS	Quality Management System.
SDS	Safety Data Sheet.
SHMS	Safety and Health Management System.
SOP	Standard Operating Procedure.
SSE	Site Senior Executive.
Take 5	Personal Risk Assessment.

4. PROCEDURE

4.1. Process Definitions

GHS	Globally Harmonised System. The GHS for the classification and labelling of chemicals is used internationally to standardise and harmonise the classification and labelling of chemicals.
Hazchem	Hazardous Chemicals (Hazchem) is the name given to the group of chemicals classified as hazardous for use at workplaces according to the GHS. The GHS classification system focuses on chemicals with acute and chronic hazards to health and safety in the workplace.



Chemalert/Chem Watch	Reference to online system software program that can be used as a register and a library of substances on site.
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4.2. Major Hazard Facilities

The Vulcan Mine currently does not meet the criteria for a major hazard facility under the NOHSC document entitled National Standard for the Control of Major Hazard Facilities (NOHSC:1014).

4.3. Contractor Compliance

Contractors are to be notified prior to onboarding, of the requirement to comply with the mine system for the management of hazardous substances and remove all unused substances and containers from site on completion of the contract unless otherwise agreed in writing with the Vulcan Mine contractor manager.

Contractors shall provide a Hazardous Substances Register to the Vulcan Mine contractor manager for approval before they commence. Any hazardous substance not already site approved requires approval by the HST Manager via VUL-FRM-02-04 Hazardous Substance Approval Form accompanied by a current SDS. All approved hazardous substances shall be added to the site Chemical software program by the HST Department.

The relevant Vulcan Mine contractor manager is responsible to ensure that all contractor hazardous substances comply with this system, and the compliance is monitored on a regular basis through routine inspections.

4.4. Purchasing

No unauthorised hazardous substances shall be brought onto the Vulcan Mine. Persons initially requiring the purchase of substances shall ensure the product is approved and included in the VUL-REG-18-26-Hazardous Substances Register as approved for use.

Where the hazardous substance is not listed on the Register, the person making the request is to check the register for alternate approved items or seek an approval for the new hazardous substance with the HST Manager.

4.5. Stock Control

All hazardous substances received into the Vulcan Mine shall be checked to ensure they:

- are labelled with the correct substance name;
- are accompanied by an SDS which identifies the chemical by the name on the label; and
- appear in the Chemical Register software program as approved for use at the Mine.

4.6. Safety Data Sheets (SDS)

A current SDS shall be available for each hazardous substance at the Vulcan Mine.

The SDS shall be less than five years old from issue date. It is preferred that the SDS has an Australian supplier or manufacturer contact details listed. If a current SDS is not available, the substance shall not be used until the SDS is available.

The SDS must be available to anyone likely to be exposed to the hazardous substance, including first aiders and emergency response personnel.

Refer Chemical Software program for Register, risk assessment (if applicable), PPE and First Aid requirements.

4.7. Storage

Storage areas of hazardous substances will be as prescribed in the SDS.

Explosives will be stored in accordance with explosives procedures, (Magazine requirements).

All hazardous substance storage areas will have a Compatible Storage Chart prominently displayed.



The storage of gases is to be in accordance with the provision of AS 1596:2014 LP Gas - Storage and handling and AS 4332-2004 (R2016) Storage of gas cylinders.

Full cylinders are to be stored in a secure, upright manner, segregated by class, free from contact with greases, oils or water, and separated from empty cylinders.

Storage facilities are to be:

- constructed of fire rated material and have a firm, level floor;
- away from occupied workplaces and thoroughfares;
- well ventilated and provided with basic weather protection;
- free from fire risk;
- designated no naked flame area;
- provided with storage area signage and Hazchem labelling;
- provided with appropriate safety/emergency equipment (e.g. fire extinguishers);
- a minimum distance of three metres must separate oxygen cylinders from those containing flammable gases; and
- all cylinders are to be treated as full unless valve stems have been removed.

Storage areas are to be regularly checked for any signs of release of hazardous substances.

4.8. Decanting and Use

Hazardous substances shall be decanted and used in accordance with the SDS. Hazardous substances shall remain stored in their own containers or packaging or be placed in appropriate and correctly labelled containers. All persons undertaking tasks that involve use of / contact with / exposure to Hazardous Substances, shall be suitably inducted, trained and authorised. Effective PPE shall be worn to reduce the risk of contact to an acceptable level.

Where possible, the appropriate devices or structures shall be set up to minimise any possibility of accidental spillage of the hazardous substance or dangerous good.

Where any discrepancy in the above is noted, the delivery is to be either rejected or the substance isolated in a safe storage facility and the HST Manager notified.

4.9. Labelling

Labelling must be in place on all storage vessels and facilities. Labels must:

- clearly identify the stored material;
- be firmly secured to the container;
- be legible and durable;
- comply with the national labelling requirements;
- remain on the container until the contents have been removed and the container has been completely cleaned (free of the hazardous substance) or the contents have been neutralised, cured or chemically deactivated;
- not be removed, defaced, modified or altered; and
- contain usage guidance where applicable.

4.10. Placarding

For all internal storage facilities, where the need for such placarding has been determined against the exemption limits in the regulation, placarding will be provided for both single and mixed storage.

4.11. PPE and Equipment

All equipment used in conjunction with hazardous substances must be inspected and maintained in accordance with the manufacturer's instructions and relevant Australian Standards.

CMWs using hazardous substances must have access to the relevant safety equipment including, for example:



- spill kits;
- PPE;
- fire control equipment;
- eye wash stations; and
- emergency shower stations.

Where an SDS requires the wearing of PPE as part of the safe handling of the substance, it must be provided to all persons and must be worn in the appropriate manner. On completion of the task the PPE shall be removed, washed and stored in the appropriate manner or if required, disposed of in a safe manner.

For further information on the use of PPE refer to VUL-SOP-065-PPE.

4.12. Transportation

Transport equipment must be fit for purpose, this includes, adequate restraints, placarding and correct labelling of substances. An SDS should also accompany the substance whilst in transit. Whilst on the mine site Transportation must follow the Mine Traffic Rules and have effective communication with other site vehicles. Please refer VUL-SOP-116(a,b,c,d,e,f,) Transporting, Storage & Handling Explosives. For Transporting section 4.

4.13. Environment (Waste)

Any container containing waste should be appropriately labelled with the respective label.

Before the disposal of any substance, referral must be made to the SDS for the safe disposal requirements.

Hazardous substances will be disposed of in accordance with the environmental authority and environmental regulation, this shall include the removalist being licensed.

4.14. First Aid

First aid measures stated on the SDS shall be consulted for the treatment of injuries resulting from the exposure to hazardous substances.

The VUL-SOP-038-First Aid shall be followed in the provision of first aid.

5. ROLES AND RESPONSIBILITIES

SSE	Shall review and approve this procedure.
HST Manager	Shall ensure that all provisions of this procedure are implemented, and that compliance is achieved.
Managers/Superintendents	Shall be responsible for their area of operations and the implementation and application of this procedure; Provide adequate training, information, structure and supervision to ensure that this procedure is implemented; Carry-out a periodic review of activities to ensure the appropriate application and understanding of this procedure; and Ensure immediate and appropriate steps are taken to investigate and rectify any risks to health and safety arising from these activities.
Supervisors	Ensure all CMWs are familiar with, have access to and comply with the requirements set out in this procedure.
All CMWs (including visitors and contactor)	Shall comply with the requirements of this procedure.



6. REFERENCES

- AS 1319-1994 Safety Signs for the occupational environment
- AS 1345:1995 Identification of the contents of pipes, conduits and ducts
- AS 1940:2017 The storage and handling of flammable and combustible liquids
- AS 4332:2004/ Amdt 1-2005 The storage and handling of gases in cylinders
- AS/NZS 1596:2014 The storage and handling of LP Gas
- AS/NZS 3833:2007 The storage and handling of mixed classes of dangerous goods, in packages and intermediate bulk containers
- Coal Mining Safety and Health Act 1999 (Qld)
- Coal Mining Safety and Health Regulation 2017 (Qld)
- DNRME Safety Bulletin 13 [Hazards from use and storage of aerosol containers](#)
- DNRME Safety Bulletin 132 [Xanthates in mining](#)
- DNRME Significant Incident 56 [Lime burns to eyes due to failure of a discharge hose](#)
- [Globally Harmonised System of Classification and Labelling of Chemicals \(GHS\)](#)
- National Transport Commission [Australian Code for the Transport of Dangerous Goods by Road and Rail](#)
- [Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice 2011](#)
- VUL-SOP-02-04-Hazardous Substance Approval Form
- VUL-SOP-065-PPE
- VUL-SOP-038-First Aid

7. REVIEW

This document shall be reviewed at minimum every two years, or as follows:

- when there is a change of method and/or technology and/or legal or other requirement that may affect the accuracy of this document;
- when operational changes occur that effect the currency of the document;
- when there has been a significant event to which this document was relevant; and
- as a result of relevant audit findings.

8. DOCUMENT CONTROL

Version	Date	Description	Document Controller
01	15/5/2020	Initial Draft	Rachael Dacker
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