# Dangerous goods risk assessment template

## Site details

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| **Operator name** | **Dangerous goods site licence no. (if applicable)** |
| **Site address** |
| **Site location and site reference no. (if applicable)** | **Description of dangerous goods storage or handling system** |
| **Persons involved in this risk assessment** |

**Supporting documentation** (please attach)

* Site plan and manifest [r. 78]
* Safety data sheet(s) (SDS) [r. 79]
* Compliance check against an approved code of practice (e.g. Australian Standard) identified in section 2

**Complete**

* Where applicable (i.e. no approved code of practice applicable or a variance to the code has been identified) complete the risk assessment in section 3
* Demonstration of compliance against Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007 in section 4

# 1 Hazard identification

## 1.1 Product details

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| **Manufacturer**  |  |
| **Active constituents** |  |
| **Physical state** |  |
| **Physical appearance, odour, other characteristics** |  |

## 1.2 Details of dangerous goods storage or handling

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| --- | --- | --- | --- | --- | --- |
| **UN No.** | **Class or Division** | **Subsidiary hazard** | **Packing Group** | **Name of dangerous good** | **Quantity (kL or t)** |
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## 1.3 Review of SDS for hazards arising from properties

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|  *[Focus on the intrinsic hazards of the dangerous goods arising from specific physical, chemical and toxicity properties]*  |

## 1.4 List of previous dangerous goods incidents at this site and control measures adopted in response

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## 1.5 Review your hierarchy of control. For example, whether the dangerous goods can be replaced by another substance less hazardous

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# 2 Application of an approved code of practice

Use this section to identify and record approved codes of practice that are applicable to your dangerous goods storage and handling site.

Enter the approved codes of practice in the table below that applies to your dangerous goods site *(some examples have been provided).*

*Note: The full list of approved codes of practice under the Dangerous Goods Safety Act 2004 is available from* [*Government Gazette, WA - 28 August 2020*](http://www.dmp.wa.gov.au/Documents/Dangerous-Goods/DGS_COP_GovGazettePgs_2748-2750.pdf)

| **Number** | **Title of approved codes of practice** | **Edition** | **Applied? (Y/N)** |
| --- | --- | --- | --- |
| **Australian or Australian/New Zealand Standard** |
| AS/NZS 1596 | The storage and handling of LP Gas | 2014 |  |
| AS 3961 | The storage and handling of liquefied natural gas | 2017 |  |
| AS 1894 | The storage and handling of non-flammable cryogenic and refrigerated liquids | 1997 |  |
| AS 1940 | The storage and handling of flammable and combustible liquids | 2017 |  |
| AS 2927 | The storage and handling of liquefied chlorine gas | 2019 |  |
| AS/NZS 2022 | Anhydrous ammonia - Storage and handling | 2003 |  |
| AS 3780 | The storage and handling of corrosive substances | 2008 |  |
| AS/NZS 3833 | The storage and handling of mixed classes of dangerous goods in packages and intermediate bulk containers | 2007 |  |
| AS 4326 | The storage and handling of oxidizing agents*Note: AS 4326 is not applicable to solid ammonium nitrate. For the safe storage of solid ammonium nitrate please refer to the DMIRS code of practice below* | 2008 |  |
| AS 4332 | The storage and handling of gases in cylinders | 2004 |  |
| AS/NZS 5026 | The storage and handling of Class 4 dangerous goods | 2012 |  |
| AS/NZS 4452 | The storage and handling of toxic substances | 1997 |  |
| AS/NZS 5149 | Refrigerating systems and heat pumps - Safety and environmental requirements (consisting of four standards) | 2016 |  |

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| **Department of Mines, Industry Regulation and Safety** |
| N/A | Code of Practice – Safe storage of solid ammonium nitrate | 4th Edition |  |
| **Australasian Explosives Industry Safety Group (AEISG)** |
| N/A | Code of Practice - Storage and Handling of UN3375 | 5th Edition |  |
| **Enter below the approved Code of Practice(s) that applies to your site (refer to the link provided above for the full list)** |
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| **2.1** | **Is the storage or handling system fully covered within the scope of an approved code of practice?**If you have answered ‘No’, you need to complete Section 3 risk assessment. | [ ]  Yes [ ]  No |
| **2.2** | **Has a compliance check against an approved code of practice (identified in the table above) been completed and attached?**If you answered ‘No’, you need to conduct a compliance check against an approved code of practice and attach documentation to confirm compliance. | [ ]  Yes [ ]  No |
| **2.3** | **Are there any unusual hazards with this storage and handling installation?**If you have answered ‘Yes’, you need to complete Section 3 risk assessment. | [ ]  Yes [ ]  No |
| **2.4** | **Have alternative safety measures been applied that is at variance to the approved code of practice?**If you have answered ‘Yes’, you need to complete Section 3 risk assessment. | [ ]  Yes [ ]  No |

# 3 Risk assessment

Complete this table when:

* an applicable code of practice for your storage or handling site has *not* been identified

or

* a variance to the code has been identified during a compliance check and alternative safety measures implemented.

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| **Ref. no.** | **Hazard****[List the activity, procedure, plant, process or situation that could give rise to a dangerous goods incident]** | **Impact of a hazardous event happening [How big is the risk?]** | **Proposed risk control measures** | **Have the risk control measures been implemented?** **[If “No”, document this in Section 5]** | **Residual risk after implementation of the risk control measures** | **Is the residual risk as low as reasonably practicable (ALARP)?**  |
| **C** | **L** | **R** | **C** | **L** | **R** |
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*C = consequence L = likelihood R = risk rating*

*Note: Refer to Appendix 1 (Risk Score Calculator) in the Dangerous Goods Safety Guide – Risk assessment for dangerous goods*

# 4 Demonstration of compliance against Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007

| **Risk control measure** | **Complies?** | **Description and reference** |
| --- | --- | --- |
| Spill containment [r. 51] | [Y, N, N/A] |  |
| Segregation of dangerous goods [r. 52] |  |  |
| Stability [r. 53] |  |  |
| Protection from impact [r. 54] |  |  |
| Transferring dangerous goods [r. 55] |  |  |
| Ignition sources in hazardous areas [r. 56] |  |  |
| Ventilation (hazardous atmospheres) [r. 57] |  |  |
| Separation distance [r. 58] and design and installation of storage or handling systems |  |  |
| Containers for bulk dangerous goods and pipework [rr. 60 and 61] |  |  |
| Underground storage or handling systems for Class 3 dangerous goods and petroleum products [r. 62] |  |  |
| Lighting [r. 64] |  |  |
| Entrances and exits [r. 65] |  |  |
| Security [r. 66] |  |  |
| Placarding and pipework labelling [r. 60 and 68-72] |  |  |
| Fire control equipment [r. 73] |  |  |
| Other risk control equipment [r. 74] |  |  |
| Emergency plan [r. 75] |  |  |
| Information for occupier of site adjacent to dangerous goods sites [r.76A] |  |  |
| Measures to contain DG incidents [r. 76] |  |  |

# 5 Outstanding risk control actions

Summary of risk control actions still to be implemented (if any) – where risk has not been minimised

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| **Item reference no.** | **Comments and action plan with implementation dates and persons responsible for action** |
| *[Ref. no. from Section 3 if applicable]* |  |
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# 6 Risk assessment summary

The risks from this **proposed / existing** dangerous goods storage or handling system have / have not been minimised to as low as reasonably practicable to people, property and the environment.

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| **Name of assessor(s)** |  | **Date** |  |
| **Name of operator** |  | **Date** |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Signature(s) of assessor** |  | **Signature(s) of operator** |  |
| **Date of next review** |  |  |  |