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Posted by Anonymous on Wed, 2016-05-18 15:59

Chemical Storage: Hi, just wanting some clarification on the storage of manganese dioxide, please.

The previous SDS from Chem-Supply has manganese dioxide as DG Class 5.1, the new one (Jan 2016) says Not Classified as a Dangerous Good.

What would be your recommendation for storage, please?

Voting:



No votes yet

Year Level:

7

8

9

10

Senior Secondary

Laboratory Technicians:

Laboratory Technicians

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Chemical Storage

Submitted by on 27 May 2016

Answer reviewed 24 February 2023

It can be confusing when the classification of a chemical is changed. However, the manufacturer's SDS should be referred to for the classification of a specific product. We advise that this manganese dioxide may be stored with general dry chemicals, which is consistent with the information in the SDS concerning incompatibilities.

In a survey of a number of SDSs, we only found one which gave manganese dioxide the classification Dangerous Goods Class 5.1 Oxidising solid. Safe Work Australia's GHS Hazardous Chemicals Information System also does not list manganese dioxide as an oxidising solid.¹

The criteria for classifying oxidising solids are as given in the UN Manual of Tests and Criteria for Dangerous Goods² and the UN Model Regulations.³ To determine whether a substance should be classified as a Class 5.1 oxidising solid, the substance is mixed with fibrous cellulose and the rate and intensity of burning of this mixture is compared with that of a reference mixture such as potassium bromate/cellulose. Whether the substance satisfies the criteria for Class 5.1 may depend on factors such as the form of the substance, the particle size, and whether or not the product contains additives or impurities.

References

1 Safe Work Australia website, *Hazardous Chemicals Information System*, <https://www.safeworkaustralia.gov.au/safety-topic/hazards/chemicals>

2 United Nations, 2021, *UN Manual of Tests and Criteria Rev.7/Amend.1*, UNECE website, <https://unece.org/transport/dangerous-goods/rev7-files>

3 United Nations, 2021, *UN Model Regulations on the Transport of Dangerous Goods, Rev. 22*, UNECE website, <https://unece.org/transport/dangerous-goods/un-model-regulations-rev-22>

ChemSupply Australia website, (2023), *Safety Data Sheet: Manganese dioxide*. Please search the product information page on the website for the current SDS for manganese dioxide <https://shop.chemsupply.com.au/>

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