

Class 5 – Oxidizers and Organic Peroxides (49 CFR 173.127 and 173.128)

Division 5.1 Oxidizers are materials that can, generally by yielding oxygen, cause or enhance the combustion of other materials.

Division 5.2 – Organic Peroxides are any organic compounds containing oxygen in a bivalent –O-O- structure and which may be considered derivatives of hydrogen peroxide, where one or more of the hydrogen atoms have been replaced by organic radicals. Refer to §173.128 for exceptions.

The following list contains some examples of oxidizers and organic peroxides, **but is not all inclusive:**

- Many fertilizers
- Chlorates
- Chlorites
- Nitrates
- Nitrites
- Perchlorates
- Perchlorites
- Persulfates
- Permanganates
- Peroxides
- Chemical oxygen generators
- Sodium superoxide
- Pool chemicals (sodium hypochlorite)

If there is a question as to whether the material you wish to ship is an oxidizer or organic peroxide, email the Division of Research Safety (DRS) Chemical Safety Section (css@uiuc.edu) or call 4-7213 and ask to have a determination made.

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