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structure and which may be considered derivatives of hydrogen peroxide, where one or more of the hydrogen atoms have been replaced by organic radicals.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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