

# General joint storage of hazardous materials

## Basic principles:

- The protective measures for the storage of hazardous materials must be adapted to suit the hazardous material.
- Materials which can interact with each other in a dangerous way may not be stored together.
- Knowledge and recognition of hazardous materials is a prerequisite for the safe storage of materials. The hazard symbols (transport classification, hazardous material classification) and the hazard notices (H-statements) serve this purpose.
- If the symbols and warning notices on the **packaging** or the **safety data sheet** are unclear or give no clear indication of the hazards presented by this material, consult an expert or the official technical body responsible.

| Material properties                                          | ADR/SDR transport labelling          | GHS/CLP labelling | Storage class | 1     | 2      | 3     | 4.1    | 4.2   | 4.3 | 5     | 6.1    | 6.2   | 7     | 8   | 10/12  | 11/13  | NH     |
|--------------------------------------------------------------|--------------------------------------|-------------------|---------------|-------|--------|-------|--------|-------|-----|-------|--------|-------|-------|-----|--------|--------|--------|
| Explosive materials                                          |                                      |                   | 1             | Green | Red    | Red   | Red    | Red   | Red | Red   | Red    | Red   | Red   | Red | Red    | Red    | Red    |
| Liquefied gases and gases under pressure                     |                                      |                   | 2             | Red   | Green  | Red   | Red    | Red   | Red | Red   | Red    | Red   | Red   | Red | Yellow | Yellow | Yellow |
| Flammable liquids                                            |                                      |                   | 3             | Red   | Red    | Green | Red    | Red   | Red | * * * | * *    | Red   | Red   | * * | * *    | Red    | Red    |
| Flammable solids                                             |                                      |                   | 4.1           | Red   | Red    | Red   | Green  | Red   | Red | Red   | Red    | Red   | Red   | Red | Yellow | Yellow | Red    |
| Spontaneously combustible materials                          |                                      |                   | 4.2           | Red   | Red    | Red   | Green  | Red   | Red | Red   | Red    | Red   | Red   | Red | Red    | Red    | Red    |
| Materials that release flammable gases in contact with water |                                      |                   | 4.3           | Red   | Red    | Red   | Red    | Green | Red | Red   | Red    | Red   | Red   | Red | Red    | Red    | Red    |
| Oxidizing materials, organic peroxides                       |                                      |                   | 5             | Red   | Red    | * *   | Red    | Red   | Red | * *   | * *    | Red   | Red   | * * | * *    | Red    | Red    |
| Toxic materials                                              |                                      |                   | 6.1           | Red   | Red    | * *   | Red    | Red   | Red | * *   | Green  | Red   | Red   | * * | * *    | Yellow | Red    |
| Potentially infectious materials                             |                                      |                   | 6.2           | Red   | Red    | Red   | Red    | Red   | Red | Red   | Red    | Green | Red   | Red | Red    | Red    | Red    |
| Radioactive materials                                        |                                      |                   | 7             | Red   | Red    | Red   | Red    | Red   | Red | Red   | Red    | Red   | Green | Red | Red    | Red    | Red    |
| Caustic and corrosive materials                              |                                      |                   | 8             | Red   | Red    | * *   | Red    | Red   | Red | * *   | * *    | Red   | Red   | * * | * *    | Yellow | Red    |
| Other liquids                                                |                                      |                   | 10/12         | Red   | Yellow | * *   | Yellow | Red   | Red | * *   | * *    | Red   | Red   | * * | Green  | Red    | Red    |
| Other solids                                                 |                                      |                   | 11/13         | Red   | Yellow | Red   | Yellow | Red   | Red | Red   | Yellow | Red   | Red   | Red | Yellow | Green  | Red    |
| Non-hazardous materials (NH)                                 | (e.g. textiles, packaging materials) |                   | NH            | Red   | Yellow | Red   | Red    | Red   | Red | Red   | Red    | Red   | Red   | Red | Yellow | Yellow | Green  |

## Legend:

|  |                                                                                                                                                          |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Joint storage generally allowed.                                                                                                                         |
|  | Joint storage only allowed under certain conditions. Please consult the appropriate safety data sheets or consult an expert for advice.                  |
|  | Separate storage or at least separate storage in the same fire section necessary! See also section 7 of the guideline.                                   |
|  | Frequently used materials of storage classes 3, 5, 6.1, 8 and 10/12 are listed in the table «Joint storage of frequently used basic chemicals» opposite. |

## Joint storage of frequently used basic chemicals (SC 3, 5, 6.1, 8, 10/12)

|                                           |               | Formic acid | Ammonia solution | Iron (III) chloride solution | Iron (III) chloride-sulphate solution | Acetic acid | Fluoric acid | Potassium hydroxide solution (potash lye) | Sodium hydroxide solution (soda lye) | Sodium hydrogen sulphite | Sodium hypochlorite (Javelle water) | Peracetic acid | Phosphoric acid | Nitric acid | Hydrochloric acid | Sulphuric acid | Hydrogen peroxide |
|-------------------------------------------|---------------|-------------|------------------|------------------------------|---------------------------------------|-------------|--------------|-------------------------------------------|--------------------------------------|--------------------------|-------------------------------------|----------------|-----------------|-------------|-------------------|----------------|-------------------|
|                                           | Storage class | 8           | 8                | 8                            | 8                                     | 3           | 6.1          | 8                                         | 8                                    | 10/12                    | 5                                   | 5              | 8               | 5           | 8                 | 8              | 5                 |
| Formic acid                               | 8             | Green       | Yellow           | Green                        | Green                                 | Green       | Green        | Yellow                                    | Yellow                               | Red                      | Red                                 | Yellow         | Green           | Red         | Green             | Red            | Red               |
| Ammonia solution                          | 8             | Yellow      | Green            | Green                        | Green                                 | Green       | Green        | Yellow                                    | Yellow                               | Red                      | Red                                 | Yellow         | Green           | Red         | Green             | Red            | Red               |
| Iron (III) chloride solution              | 8             | Green       | Yellow           | Green                        | Green                                 | Green       | Green        | Yellow                                    | Yellow                               | Red                      | Red                                 | Yellow         | Green           | Red         | Green             | Red            | Red               |
| Iron (III) chloride-sulphate solution     | 8             | Green       | Yellow           | Green                        | Green                                 | Green       | Green        | Yellow                                    | Yellow                               | Red                      | Red                                 | Yellow         | Green           | Red         | Green             | Red            | Red               |
| Acetic acid                               | 3             | Green       | Yellow           | Green                        | Green                                 | Green       | Green        | Yellow                                    | Yellow                               | Red                      | Red                                 | Yellow         | Green           | Red         | Green             | Red            | Red               |
| Fluoric acid                              | 6.1           | Green       | Yellow           | Green                        | Green                                 | Green       | Green        | Yellow                                    | Yellow                               | Red                      | Red                                 | Yellow         | Green           | Red         | Green             | Red            | Red               |
| Potassium hydroxide solution (potash lye) | 8             | Yellow      | Green            | Green                        | Green                                 | Green       | Green        | Yellow                                    | Yellow                               | Red                      | Red                                 | Yellow         | Green           | Red         | Green             | Red            | Red               |
| Sodium hydroxide solution (soda lye)      | 8             | Yellow      | Green            | Green                        | Green                                 | Green       | Green        | Yellow                                    | Yellow                               | Red                      | Red                                 | Yellow         | Green           | Red         | Green             | Red            | Red               |
| Sodium hydrogen sulphite                  | 10/12         | Red         | Yellow           | Red                          | Red                                   | Red         | Red          | Yellow                                    | Yellow                               | Green                    | Green                               | Yellow         | Red             | Red         | Red               | Red            | Red               |
| Sodium hypochlorite (Javelle water)       | 5             | Red         | Yellow           | Red                          | Red                                   | Red         | Red          | Yellow                                    | Yellow                               | Green                    | Green                               | Yellow         | Red             | Red         | Red               | Red            | Red               |
| Peracetic acid                            | 5             | Yellow      | Red              | Red                          | Red                                   | Red         | Red          | Yellow                                    | Yellow                               | Red                      | Red                                 | Yellow         | Red             | Red         | Red               | Red            | Red               |
| Phosphoric acid                           | 8             | Green       | Yellow           | Green                        | Green                                 | Green       | Green        | Yellow                                    | Yellow                               | Red                      | Red                                 | Yellow         | Green           | Red         | Green             | Red            | Red               |
| Nitric acid                               | 5             | Red         | Yellow           | Red                          | Red                                   | Red         | Red          | Yellow                                    | Yellow                               | Red                      | Red                                 | Yellow         | Green           | Red         | Red               | Red            | Red               |
| Hydrochloric acid                         | 8             | Green       | Yellow           | Green                        | Green                                 | Green       | Green        | Yellow                                    | Yellow                               | Red                      | Red                                 | Yellow         | Green           | Red         | Red               | Red            | Red               |
| Sulphuric acid                            | 8             | Red         | Yellow           | Green                        | Green                                 | Green       | Green        | Yellow                                    | Yellow                               | Red                      | Red                                 | Yellow         | Green           | Red         | Red               | Red            | Red               |
| Hydrogen peroxide                         | 5             | Red         | Yellow           | Red                          | Red                                   | Red         | Red          | Yellow                                    | Yellow                               | Red                      | Red                                 | Yellow         | Red             | Red         | Red               | Red            | Red               |

**Chemicals within the same storage class can sometimes react dangerously with each other.**

**Therefore, please observe the hazard notices (H-statements) as well as additional information about any chemical incompatibilities in the respective safety data sheets!**