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Packing of chemical

The chemical registry must be updated before packing chemicals. See Procedure - Requirement of chemicals moving to LVB. Chemicals must be securely packed in blue transport boxes to ensure safe handling and transport

Overall

- Incompatible chemicals are not packed together
- Liquids are packed in a way that minimizes risk of leakage and/or breakage.
- Glass bottles should be wrapped in bubble wrap. Make sure all chemical containers are intact, if not, dispose of the container.

Specially for incompatibility

- Do not pack acids with bases.
- Do not pack flammables with oxidizers.
- Pack highly reactive and especially dangerous chemicals separate (ex. pyrophoric chemicals, water-reactive metal organic substances, HF, NaN3)

Specially for solids chemicals

- Generally, solids chemicals can be packed together.
- Pack flammable solids separately from other solids. (Ex. metal powder, sodium, lithium, etc.)
- Pack pyrophoric solids separately from other solids. (Ex.: Raney Nickel activated, Sodium dithionite, $TiCl_3$, Na_2S dry, Nickel sponge, Iron sponge etc.)

Exicators can be placed directly into the blue transport boxes if compatibility rule is followed.

Specially for liquid chemicals

- Pack organic liquids separately from inorganic liquids.
- Pack acids, bases and neutral liquids separately.
- Pack highly reactive and pyrophoric liquids separately.
- Wrap glass bottles in bubble wrap and minimizes risk of breakage/leakage

Specially for small gas bottles

Contact HSE coordinator if you have small gas bottles (e.g., lecture bottles) that need to be moved.

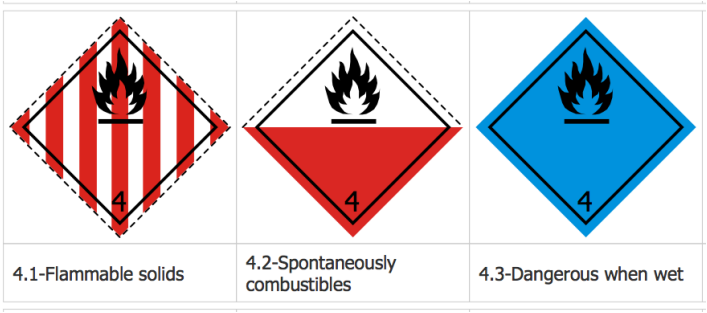
Specially for explosive chemical

Chemicals with an explosion risk can only be transported after agreement with Relokator.

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Other consideration

- Consider minimizing/disposing *liquid* chemicals that are highly reactive (primarily ADR 4.1, 4.2, and 4.3).



4.1-Flammable solids	4.2-Spontaneously combustibles	4.3-Dangerous when wet

- Peroxide forming chemicals such as diethyl ether that have been open for more than 6 months should be disposed of and not be transported.
- Please use-up consumer acids and bases and avoid having multiple open containers of the same acid or base. Consider disposing open containers instead of moving them. Hydrofluoric acid needs to be packed by itself and in a special way. Please contact HSE coordinator for that.
- Please use up consumer solvents as much as possible to minimize the need to move them. Do not have multiple open containers of the same solvent.
- Once in the LVB, unpack chemicals asap and place them into the appropriate chemical cabinet. Unpack transport boxes containing volatile chemicals under the fume hood.

Example of packaging of organic liquid chemicals:

- 1 box with organic acids
- 1 box with organic bases (mostly amines)
- 1 box with solvents
- 1 box with other organic liquids.
  Do you have may organic liquids than pack flammable liquids separate from non-flammable liquids.
- 1 box with highly reactive liquids (pyrophoric liquids, water-reactive metal organic substances)

Example of packaging of inorganic liquid chemicals

- 1 box with inorganic acids,
  HF needs to be packed alone (contact HSE coordinator)
  Oxidizing acids, such as conc. HNO3 should be backed alone or in a secondary confinement
- 1 box with inorganic bases
- 1 box with other inorganic liquids
  Be aware that many inorganic liquid chemicals are highly reactive with water and toxic. Pack them well and if needed use a secondary confinement.