

## Aerosols bridging principle example

While this specific example uses skin corrosion/irritation data, the reader is reminded that the aerosols bridging principle can be applied to other hazard classes as prescribed in the purple book.

### Aerosols

An aerosol form of the mixture may be classified in the same hazard category as the tested non-aerosolized form of the mixture provided that the added propellant does not affect the irritation or corrosive properties of the mixture upon spraying.

#### Tested mixture information:

Skin Corrosion/Irritation test data
Animal 1: Mean Erythema/eschar: 3.8 Mean Oedema: 2.5
Animal 2: Mean Erythema/eschar: 3.5 Mean Oedema: 2.9
Animal 3: Mean Erythema/eschar: 4.0 Mean Oedema: 3.2

Based on the test data the mixture is classified: Skin Irritant; Category 2

The tested mixture is aerosolized using a 50/50 mixture of propane/butane as the propellant.

#### Aerosolized untested mixture information:

Ingredient	Weight %
Tested mixture	50
Liquefied propane	25
Liquefied butane	25

### Answer:

Applying the aerosols bridging principle the aerosolized untested mixture can be classified as Skin Irritant; Category 2 without additional testing.

#### Rationale:

- (a) Classification via application of substance criteria is not possible since skin corrosion/irritation test data was not provided for the aerosolized untested mixture;
- (b) Classification via the application of bridging principles can be considered since there are sufficient data on both the individual ingredients and a similar tested mixture;
- (c) The aerosols bridging principle can be applied because:
  - (i) The non-aerosolized mixture has been tested, and
  - (ii) The propellant (i.e. 50/50 mixture of liquefied propane/butane) is not corrosive or an irritant, and
  - (iii) The propellant will not affect the irritation properties of the mixture upon spraying.