# Chloropentafluoroethane

| CAS number: | 76-15-3 |
| --- | --- |
| Synonyms: | 1-Chloro-1,1,2,2,2-pentafluoroethane, CFC-115, FC‑115, Fluorocarbon-115 |
| Chemical formula: | C2ClF5 |
| Structural formula: | — |

Workplace exposure standard (retained)

| TWA: | **1,000 ppm (6,320 mg/m3)** |
| --- | --- |
| STEL: | **—** |
| Peak limitation: | **—** |
| Notations: | **—** |
| IDLH: | **—** |
| Sampling and analysis: | The recommended value is quantifiable through available sampling and analysis techniques. |

## Recommendation and basis for workplace exposure standard

The TWA of 1,000 ppm (6,320 mg/m3) is recommended to protect for adverse health effects in exposed workers.

## Discussion and conclusions

Chloropentafluoroethane was historically used as a refrigerant and as a propellant in aerosol food preparations.

It is considered to exhibit low toxicity. No toxicological evidence in humans is available. Short and sub-chronic inhalation studies in animals report no adverse health effects at and above 100,000 ppm. There is limited evidence of systemic injury or cardiac sensitisation at high doses (ACGIH, 2001).

A TWA of 1,000 ppm is considered protective of adverse health effects.

## Recommendation for notations

Not classified as a carcinogen according to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Not classified as a skin sensitiser or respiratory sensitiser according to the GHS.

There are insufficient data to recommend a skin notation.

# Appendix

### Primary sources with reports

| Source Year set Standard |
| --- |
| SWA 1991 TWA: 1,000 ppm (6,320 mg/m3) | |
|  |
| ACGIH 2001 TLV-TWA: 1,000 ppm (6,320 mg/m3) |
| TLV-TWA recommended based on occupational hygiene practice rather than toxicological data, as there are limited data.  Summary of data:  No evidence in humans presented.  Animal data:   * No effects in rats exposed at 800,000 ppm (plus 200,000 ppm oxygen) for 4 h * No effects in rats, mice and dogs receiving 90 exposures at 100,000 ppm for 6 h/d * Limited evidence of systemic injury or cardiac sensitisation at high doses.   Insufficient evidence to recommend carcinogen, skin or sensitiser notations. |
| DFG NA NA |
| No report. |
| SCOEL NA NA |
| No report. |
| OARS/AIHA NA NA |
| No report. |
| HCOTN NA NA |
| No report. |

### Secondary source reports relied upon

| Source |  | Year | Additional information |
| --- | --- | --- | --- |

### Carcinogenicity — non-threshold based genotoxic carcinogens

| Is the chemical mutagenic? | Insufficient data |
| --- | --- |
| Is the chemical carcinogenic with a mutagenic mechanism of action? | Insufficient data |
| **Insufficient data are available to determine if the chemical is a non-threshold based genotoxic carcinogen.** | |

## Notations

| Source | Notations |
| --- | --- |
| SWA | NA |
| HCIS | NA |
| NICNAS | NA |
| EU Annex | NA |
| ECHA | NA |
| ACGIH | NA |
| DFG | NA |
| SCOEL | NA |
| HCOTN | NA |
| IARC | NA |
| US NIOSH | NA |

NA = not applicable (a recommendation has not been made by this Agency); — = the Agency has assessed available data for this chemical but has not recommended any notations

### Skin notation assessment

| Calculation |
| --- |
| Insufficient data to assign a skin notation. |

### IDLH

| Is there a suitable IDLH value available? | No |
| --- | --- |

## Additional information

| Molecular weight: | 154.47 |
| --- | --- |
| Conversion factors at 25°C and 101.3 kPa: | 1 ppm = Number mg/m3; 1 mg/m3 = Number ppm |
| This chemical is used as a pesticide: |  |
| This chemical is a biological product: |  |
| This chemical is a by-product of a process: |  |
| A biological exposure index has been recommended by these agencies: | ACGIH  DFG  SCOEL |

## Workplace exposure standard history

| Year | Standard |
| --- | --- |
| Click here to enter year |  |

## References

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