
Halon Options Task Group Update

Chapter 2: Halocarbon Replacements

Tom Cortina
Halon Alternatives Research Corporation

IASFPWG Meeting
May 18, 2010
London, England

Chapter Overview

2. - Classes of Halocarbon Replacements

2.1 - Toxicology

2.2 - Environmental Considerations

2.3 - Commercialized Replacements

Chapter Update

2. Classes of Halocarbon Replacements

- Hydrochlorofluorocarbons (HCFCs) - keep
- Perfluorocarbons (PFCs or FCs) - remove
- Hydrofluorocarbons (HFCs) - keep
- Fluoroiodocarbons (FICs) - keep or remove?
- Fluoroketones (FKs) - add
- Hydrobromofluorocarbons (HBFCs) - do we add back because of BTP?

Chapter Update

2.1 Toxicology

- Information on acute, subchronic, chronic, anesthesia, cardiac sensitization - unchanged
- Exposure Limits
 - Update information on NFPA 2001 and EPA SNAP exposure limits
 - Add information on ISO 14520 exposure limits
 - UK Halon Alternatives Group (HAG) allowable design concentrations - is this still relevant?

Chapter Update

2.2 Environmental Considerations

- Information on ODP, atmospheric lifetime, GWP, impacts of blends - unchanged
- Regulatory Restrictions
 - Update information on Montreal Protocol controls, accelerated HCFC phase out
 - Add information on halon regulations in EU and Canada, revised critical use list (Annex VI), ICAO resolution phase out dates
 - Add information on potential regulation of HFCs as greenhouse gases - Montreal Protocol, US legislation, EU F-gas regulation

Chapter Update

2.3 Commercialized Replacements

- Update Table 7 and 12
 - Eliminate agents no longer being sold such as PFCs, HCFC Blend A/D/E, HCFC-124?, CF_3I ?
 - Add new agents such as fluoroketones (FKs)
- Update Table 8, 9, 10, 11, and 13
 - Collect updated information from manufacturers on design concentrations, weight and volume equivalents, performance
 - Update information on environmental and toxicity properties