



# RECOVERED CHEMICAL MATERIEL DIRECTORATE FACT SHEET

## CHEMICAL AGENT IDENTIFICATION SETS (CAIS)

The U.S. Army used Chemical Agent Identification Sets (CAIS) from 1928 to 1969 to train Soldiers and Sailors in the safe handling, identification and decontamination of chemical warfare agents. The Army produced the sets in large quantities and various configurations, distributing the items over a broad area.

The sets consisted of glass ampoules, vials and bottles filled with chemical agents and packed in metal shipping containers or wooden boxes. In some cases, after use in training, the Army buried CAIS items. Occasionally, only the glass vials or bottles containing chemical agent were buried.

CAIS items containing diluted agent or industrial chemicals in glass ampoules and vials are typically packaged and processed as commercial hazardous waste. If CAIS bottles containing pure chemical agent are recovered, RCMD deploys its proven transportable treatment systems. RCMD safely treats small quantities of recovered CAIS bottles one at a time in the Single CAIS Access and Neutralization System (SCANS). For larger recoveries, RCMD can safely treat up to 188 bottles at a time, using the CAIS bottle holder for the Explosive Destruction System (EDS).

***If you encounter these items, please call your local emergency personnel. Do not touch or move these items as they may contain small amounts of chemical agent.***

## CAIS Configurations



### Glass bottles

#### Could contain:

- Pure sulfur mustard
- Lewisite on charcoal
- Chloropicrin on charcoal
- Solid chloroacetophenone
- Sulfur mustard on charcoal
- Nitrogen mustard on charcoal
- Solid triphosgene
- Solid adamsite



### Glass ampoules and vials

#### Could contain:

- 5% lewisite in chloroform
- Pure phosgene
- GA-simulant
- 5% sulfur mustard in chloroform
- 10% nitrogen mustard in chloroform
- Pure cyanogen chloride
- 50% chloropicrin in chloroform



*In some cases, after their use in training, the U.S. Army would bury CAIS items, which are periodically recovered during environmental remediation of the burial sites.*

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