

**Box 1a. A partial list of poison gas preparation and usage in World War 1 (and immediately thereafter)<sup>a,c</sup>**

<i>Gas</i>	<i>Type</i>	<i>Date of first significant use</i>	<i>First use location</i>	<i>Responsibility</i>	<i>Casualties</i>	<i>Deaths</i>
ethyl bromacetate	tear gas	Aug 1914	Western front	France	?	0
xylyl bromide	tear gas	Jan 1915	Russian front	Germany	?	?
chlorine	respiratory	Jan/Apr 1915	Ypres	Germany	7,000	350
chlorine	respiratory	Aug 1915	Russian front	Germany	>>9,000	>>1,000?
chlorine	respiratory	Sept 1915	Loos	Britain	low	0?
phosgene	respiratory	Dec 1915	Ypres	Germany	>1,000	69
mustard gas	vesicant	Jul 1917	Ypres	Germany	?	?
hydrogen cyanide	systemic respiration	1917	Arras	France & Britain	low	very low
lewisite	vesicant/ respiratory	stockpiled/ not used	---	USA	0	0
diphenyl chlorarsine	tear gas/ irritant	1919	Russia	UK	?	?
<b>Total WW1</b>	<b>all</b>	<b>1914-1918</b>	<b>all fronts</b>	<b>all combatants</b>	<b>1,240,000</b>	<b>~88,500</b>

**Box 1b. Recent examples of poison gas preparation and usage in war<sup>b,c</sup>**

<i>Gas</i>	<i>Type</i>	<i>Date of first significant use</i>	<i>First use location</i>	<i>Responsibility</i>	<i>Casualties</i>	<i>Deaths</i>
sarin	nerve	1984+	Iran	Iraq	~100,000?	~20,000?
sarin/tabun	nerve	1988	Kurdistan	Iraq	?	~5,000
sarin/tabun	nerve	2013	Ghouta	Syria?	3,600	400-1,400

**References**

- a. Wikipedia entry (2014) [http://en.wikipedia.org/wiki/Chemical\\_weapons\\_in\\_World\\_War\\_I](http://en.wikipedia.org/wiki/Chemical_weapons_in_World_War_I) and other websites referenced therein.
- b. Wikipedia entry (2014) [http://en.wikipedia.org/wiki/Ghouta\\_chemical\\_attack](http://en.wikipedia.org/wiki/Ghouta_chemical_attack) and other websites referenced therein.
- c. Spiers, E. M. (2010) A history of chemical and biological weapons. Reaktion books.