Science for Diplomats at EC-84
What Defines a Riot Control Agent?

Come activate your TRP receptors and learn about the biochemistry of Riot Control Agents!

Wednesday, 8 March 2017
Ooms Room | 13.30-14.45
Light lunch available at 13.00
What Defines a Riot Control Agent?

Any chemical not listed in a Schedule, which can produce rapidly in humans sensory irritation or disabling physical effects which disappear within a short time following termination of exposure.

(Article II, paragraph 7)
Which the SAB Advises Means This:
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NOTE BY THE TECHNICAL SECRETARIAT

DECLARATION OF RIOT CONTROL AGENTS: ADVICE FROM THE SCIENTIFIC
ADVISORY BOARD

1. In accordance with subparagraph 1(e) of Article III of the Chemical Weapons
Convention (hereinafter “the Convention”), States Parties are required to declare riot
control agents (RCAs), which are defined in paragraph 7 of Article II of the
Convention.

2. At its Twenty-fifth Session, the Scientific Advisory Board (SAB) was requested by the
Director-General ( Annex 4 of SAB-29/E, dated 14 June 2013) to provide technical
advice on an initial list of RCAs that had been declared by States Parties, researched
or were commercially available.

3. The SAB has advised the Director-General that the following 17 chemicals
correspond to an RCA as defined by paragraph 7 of Article II of the Convention:

(a) 2-Chloromethanesulfonfyl (CAS 5332-27-4);
(b) 2-Chloroethanesulfonfyl chloride (CAS 26984-11-4);
(c) Dithionyl[O][S] (CAS 22747-67-4);
(d) Chloroform (CAS 67-66-3);
(e) 8-Methyl-Vanillyllectamid (6-methamidacin) (CAS 401-88-1);
(f) 8-Methyl-Vanillyllectamid (diethylamin) (CAS 404-88-5);
(g) N-Vanillyllectamid (pseudocapsaicin, PAVA) (CAS 2444-46-4);
(h) N-Vanillyl-9-methyldde-7-(5)-amid (homocepitacacin) (CAS 58403-46-1);
(i) N-Vanillyl-9-methyldde-7-(5)-amid (toddycapsaicin) (CAS 20780-35-1);
(j) 4-Norvanillylsericin (MPA) (CAS 52994-64-9);

CAS = Chemical Abstracts Service
CS-2014-850R/E distributed 30/05/2014
A Hands-On Science Lesson
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# A Hands-On Science Lesson

## Science for Diplomats at EC-84

### What Defines a Riot Control Agent?

<table>
<thead>
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<th>No.</th>
<th>Countermeasure Before</th>
<th>Impact (discomfort)</th>
<th>Persistence (duration)</th>
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<th>Identity*</th>
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*prize available for the highest number of correctly identified samples*
How This Works

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Data Collection Sheet (circle your answer)

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A1
B2
F8

*prize available for the highest number of correctly identified samples

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OPCW
Scoville Scale Only Applies to Peppers...


*prize available for the highest number of correctly identified samples
Presentation by Dr Christopher Timperley
NOTE BY THE TECHNICAL SECRETARIAT

DECLARATION OF RIOT CONTROL AGENTS: ADVICE FROM THE SCIENTIFIC ADVISORY BOARD

1. In accordance with subparagraph 1(e) of Article III of the Chemical Weapons Convention (hereinafter “the Convention”), States Parties are required to declare riot control agents (RCAs), which are defined in paragraph 7 of Article II of the Convention.

2. At its Twenty-ninth Session, the Scientific Advisory Board (SAB) was requested by the Director-General (Annex 4 of SAB-20/1, dated 14 June 2015) to provide technical advice on an initial list of RCAs that had been declared by States Parties, researched, or were commercially available.

3. The SAB has advised the Director-General that the following 17 chemicals correspond to an RCA as defined by paragraph 7 of Article II of the Convention:

   (a) 2,4-Dichloro-2,3-pentanedione (DN) [CAS 513-82-9]
   (b) 2-Chloro-N-(2-nitrophenyl)acetamide (CM) [CAS 62864-41-1]
   (c) Ethane-1,2-diamine (EDA) [CAS 57-50-1]
   (d) N,N-Diethanol-1,2-propanediolamine (DEPA) [CAS 102-67-0]
   (e) N-Isopropylacetamide (NIPA) [CAS 23078-35-7]

4. (g) N-Vanillyl-9-ethyldecyl-7(1-E)caproamide (NIPA) [CAS 23078-35-7]
   (h) N-Vanillyl-9-ethyldecyl-7(1-E)caproamide (NIPA) [CAS 23078-35-7]
   (i) N-Vanillyl-7-methylectanamide (NIPA) [CAS 52690-64-9]
   (j) 4-Methylthienamidine (MPA) [CAS 52690-64-9]

Full data set to be updated and published for SAB-25
Trends in Industrial Chemical Production
Zagreb, September 2017 (TBC)
OPCW Science and Technology Resources

Science for Diplomats at the OPCW 2014 - 2015

Applying the norms of the practice of chemistry to support the Chemical Weapons Convention

The Hague Ethical Guidelines

Scientific Advisory Board

The Hague Ethical Guidelines

VERIFICATION

REPORT OF THE SCIENTIFIC ADVISORY BOARD'S TEMPORARY WORKING GROUP

June 2015

https://www.opcw.org/special-sections/science-technology/science-technology-resources/