

**The Production and Promotion of 120mm munitions containing CS:
An updated briefing note for CWC States Partiesⁱ
April/May 2011**

Summary of initial concerns

1. The use of riot control agents (RCAs), such as 2-chlorobenzalmalononitrile (CS), as a method of warfare is prohibited under the 1997 Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (CWC).ⁱⁱ Such RCAs are, however, allowed to be used in law enforcement including domestic riot control.
2. In November 2003, *Jane's Defence Weekly* reported that the Turkish (State-Owned) arms manufacturer, Makina ve Kimya Endustrisi Kurumu (MKEK)ⁱⁱⁱ had developed a 120 mm mortar round - the CS MKE MOD 251 - filled with 2-chlorobenzalmalononitrile (CS).^{iv} The CS MKE MOD 251 mortar round weighs 17.34 kg and has a maximum range of 8,132 metres.^v
3. In September 2005, researchers attending the 7th International Defense Industry Fair (IDEF)^{vi} in Ankara, Turkey, recorded the promotion and marketing of this munition. Following correspondence from Bradford Non-Lethal Weapons Research Project (BNLWRP) to the Turkish government and MKEK highlighting concerns about this munition, all information concerning the CS MKE MOD 251 mortar round was subsequently removed from the MKEK website.^{vii} However, in September 2010, the CS MKE MOD 251 mortar round was again found being promoted on the MKEK exhibitor stand at the Africa Aerospace and Defence (AAD) exhibition held in Cape Town, South Africa.^{viii} (See photographs below). Furthermore, in September 2010 a second Turkish company – Furkan Defense Industry – was subsequently found to be promoting these munitions on its website.^{ix}

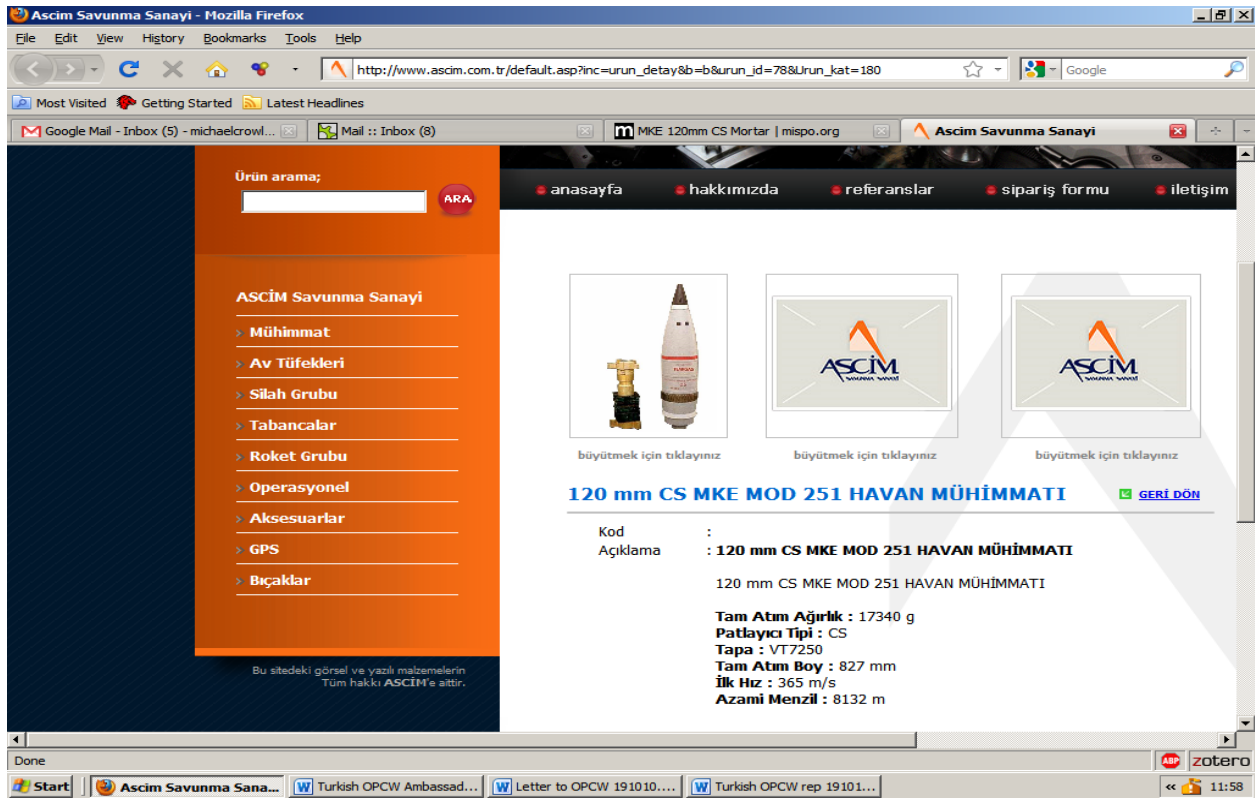


Promotion of the CS MKE MOD 251 at AAD 2010, in Cape Town, South Africa, 21st-25th September

New information received from the Turkish Government

4. On 19th October 2010, letters were sent by BNLWRP, the Omega Research Foundation (ORF) and the Institute for Security Studies (ISS) to representatives of MKEK, the Turkish Ministry of Foreign Affairs, AAD, the South African Department of International Relations and Cooperation, and the Department of Trade and Industry, highlighting our concerns regarding the development and promotion of the CS MKE MOD 251 and requesting further information. Correspondence detailing our concerns was also sent to the Director General of the OPCW, for his information. On 29th November 2010, a BNLWRP representative highlighted these issues during a presentation given at the OPCW Open Forum attended by a number of CWC States Party delegations, representatives from the OPCW Technical Secretariat and civil society organisations.^x During the subsequent question and answer session, a representative of the Turkish Delegation stated that Turkey was investigating the issue and would publish its results in a transparent manner. On 1st March 2011, correspondence (dated 25th February 2011) was received from His Excellency, Mr Ugur Dogan, the Turkish Ambassador to the OPCW (a copy of which is attached to this paper).
5. **Turkey's prohibition of CS MKE MOD 251 under the CWC:** In his letter, the Turkish Ambassador included an unequivocal statement of Turkey's position regarding the prohibited nature of the CS MKE MOD 251 under the CWC, namely that: *"Turkey is committed to its CWC obligations and in no way condones or facilitates the production, transfer or use of mortar ammunition containing tear gas or any other prohibited substance..."*. This statement is underlined by the fact that once Turkey ratified the CWC in 1997, production of the CS MKE MOD 251 *"was discontinued"*. The Ambassador further states that *"since the R&D activities conducted by MKEK...in 1996...no company in Turkey has in any way been involved in the development, production or transfer of 120mm munitions containing CS or other chemical irritants"* and that *"the Turkish Armed or Security Forces have never used 120mm munitions containing CS or any other chemical irritants."* Turkey is to be commended for the clear and forthright nature of its response. There are, however, a number of important issues raised by the Ambassador's letter which are of potential concern and we believe should be brought to the attention of the CWC States Parties.
6. **Previous Turkish production and continuing possession of CS MKE MOD 251 munitions:** In his letter, the Turkish Ambassador states that 1,000 CS MKE MOD 251 munitions were produced in 1996, prior to Turkey's ratification of the Convention. The Ambassador states that: *"None of the ...ammunitions were exported, transferred or used in real time operations. Around 150 of the said ammunitions were used for testing purposes during the initial R&D phase in 1997. The remaining 850, whose dates of expiry have passed, are stored at the Turkish Armed Forces ammunition destruction facility awaiting disposal."*
7. **Turkish promotion of CS MKE MOD 251 munitions:** In his correspondence the Turkish Ambassador confirms that *"information concerning this type of ammunition continued to be displayed in the catalogues and web-site of the company."* Such promotion appears to be a breach of Article 1, Paragraph 1(a) of the Convention. The Turkish Ambassador further states that epoxy copies of the munition reflecting *"the actual size, weight and appearance of real munitions"* were displayed by MKE *"at all the exhibitions"* although they contained *"no chemical agents."* Even though epoxy copies of the munition (rather than the munition itself) were displayed at exhibitions, it would appear that such promotion is, once again, itself a breach of Article 1, Paragraph 1(a) of the Convention and may potentially breach the national regulations of, at least, some the "host" countries where such munitions were displayed. In his letter the Ambassador specifically confirms the display of the epoxy copy at the 2010 AAD exhibition in Cape Town, South Africa. Consequently, BNLWRP, ORF and ISS have written to the South African Government forwarding a copy of the Turkish Ambassador's letter and requesting whether any national South African regulations implementing the CWC or otherwise were contravened.^{xi} To date no official written response has been received, however during a previous meeting with officials from South Africa's Department of International Relations and Cooperation, we were led to believe that South Africa is taking the issue seriously and is investigating possible shortfalls in its import control mechanisms.^{xii}
8. In his letter, the Turkish Ambassador provides information concerning the activities of Furkan Defense

Industry in promoting the CS MKE MOD 251, and of Turkey's actions in halting such activities, which we welcome. However, subsequent research by BNLWRP, ORF and ISS has revealed a second Turkish company – ASCIM Defense Industry – which was also promoting the CS MKE MOD 251.^{xiii} (See below).



ASCIM Defense Industry website promoting the CS MKE MOD 251, image downloaded 1st March 2011

On discovering such activities we immediately wrote to the company concerned on 2nd March 2011 and received the following response from a company representative on 3rd March 2011: *"I have read your research and you are right CS is prohibited in Turkey [sic]. Mentioned CS production was written by mistake on our website. After your notice e-mail, we have removed from our website."*^{xiv}

A subsequent review of the company's website has shown that the relevant product details have indeed been removed. However, the case does raise concerns regarding the effectiveness of Turkey's promulgation and monitoring of the Convention. In addition, the activities of Furkan Defense Industry and ASCIM Defense Industry raise further questions as to why these two companies sought to market weapons which Turkey had prohibited and when all existing supplies of these munitions are said to be: *"stored at the Turkish Armed Forces ammunition destruction facility awaiting disposal."*

9. **Further information obtained:** According to the 2009-2010 edition of *Janes Ammunition Handbook*, the family of "MKEK 120 mm mortar bombs are licence-produced TDA designs".^{xv} Following requests for further information and clarification, a representative of Thales (the parent company of TDA Armements) responded stating that: *"I confirm that, confirmed by forensic investigations, there is not and has never been a license agreement between TDA Armements SAS [sic] and MKEK about the 120mm mortar round and its associated munitions. Consequently, the product mentioned in your letter is not a TDA product, and contains no element and/or design element from TDA."*^{xvi} Furthermore, MKE have also stated that: *"we have never had a business cooperation with TDA company for the production of 120mm mortar or its ammunition family."*^{xvii} Correspondence was also received from the French Ministry of Foreign Affairs, describing French regulations in this area.^{xviii}

Issues for Turkey's consideration:

Further correspondence was sent by BNLWRP, ORF and ISS to the Turkish Government on 4th March 2011, raising the following issues for Turkey's consideration:

- Given Turkey's clear position regarding the prohibited nature of the CS MKE MOD 251 under the CWC, it would follow that the remaining 850 munitions should be formally declared to the Technical Secretariat together with details of the relevant production facilities. Such a declaration would appear to be required under Article 3, Paragraphs 1(a) and (c) of the CWC^{xx}. Furthermore, it would appear appropriate that Turkey provide the Technical Secretariat with full details of its past activities in regard to the development, testing, stockpiling and promotion of these munitions. It is unclear whether Turkey has taken such action to date and clarification on this issue would be beneficial.
- Although the Turkish Ambassador states that the remaining 850 munitions are "*stored at the Turkish Armed Forces ammunition destruction facility awaiting disposal*" it is unclear whether provisions have yet been made for destroying them and any existing production facilities, as would appear to be required under Article 1, Paragraphs 2 and 4 of the CW.^{xx} It would be beneficial for Turkey to clarify its position on this issue.
- Given the Turkish Ambassador's confirmation of MKE's promotion of the CS MKE MOD 251 in the company's catalogues and web-site, and at exhibitions utilising epoxy models, we recommend that all MKE print and electronic catalogues detailing the CS MKE MOD 251 munition and all epoxy models of this munition be destroyed. Furthermore, we believe that all entities promoting or providing information about MKE munitions should be notified of the prohibited nature of this munition and be requested to remove all reference to it. Although no substantive response to these issues has been received from the Turkish Government, to date, we have been informed that inter-agency consultations are on-going and a response is expected in the near future.^{xxi}

Issues for consideration by States Parties to the CWC

Under Article 1.1 of the Chemical Weapons Convention:

*"Each State Party to this Convention undertakes **never under any circumstances**:*

- (a) To develop, produce, otherwise acquire, stockpile or retain chemical weapons, or transfer, directly or indirectly, chemical weapons to anyone;*
- (b) To use chemical weapons;*
- (c) To engage in any military preparations to use chemical weapons;*
- (d) To assist, encourage or induce, in any way, anyone to engage in any activity prohibited to a State Party under this Convention."* **[Emphasis added]**

Article 2.1 of the Chemical Weapons Convention, defines a chemical weapon as:

- "(a) toxic chemicals or their precursors, except where intended for purposes not prohibited by the Convention, **as long as the types and quantities are consistent with such purposes**;*
- (b) munitions and devices specifically designed to cause death or other harm through the toxic properties of those toxic chemicals specified in subparagraph (a), which would be released as a result of the employment of such munitions and devices;..."* **[Emphasis added]**

Amongst the "purposes not prohibited" defined under Article 2.9 of the Convention are:

- "(c) Military purposes not connected with the use of chemical weapons and not dependent on the use of the toxic properties of chemicals as a method of warfare;*
- (d) Law enforcement including domestic riot control purposes."*

According to a number of international lawyers and arms control experts, a range of munitions containing RCAs which have military utility, such as cluster munitions, aerial bombs, mortar rounds and artillery shells would be inherently unacceptable for use in law enforcement activities.^{xxii} Such munitions would potentially breach the CWC '*types and quantities*' provision and the prohibition on use of RCAs as a '*method of warfare*'.^{xxiii} The correspondence from the Turkish Ambassador clearly states Turkey's view that the CS MKE MOD 251 munition is prohibited under the CWC and apparently that such prohibition would extend to other "*mortar ammunition containing tear gas or any other prohibited substance...*"

MKEK's manufacture and promotion of the CS MOD 251 mortar round was publicly documented by the Bradford Non-Lethal Weapons Research Project in October 2009^{xxiv}, was reported in the media thereafter^{xxv} and has been brought to the attention of CWC States Parties in consecutive Open Forum meetings held on the margins of CSP-14^{xxvi} and CSP 15^{xxvii}. However, a review of relevant open source documents shows that

no CWC States Party has yet raised this matter publicly under the auspices of the CWC nor initiated multilateral consultation or investigatory mechanisms under the Convention. Furthermore, correspondence received from the Legal Advisor to the OPCW stated that: *“As to the issues that you have brought to the attention of the Director General, I can confirm that no State Party has called for or initiated consultations on the subject matter.”*^{xxxviii}

Recommendations for CWC States Parties

We believe that the OPCW should address this issue as a matter of urgency and recommend that CWC States Parties should, individually or collectively, act through the appropriate mechanisms to:

- Develop criteria and a suitable process for determining which forms of large calibre RCA munitions and other forms of RCA dispersal and means of delivery are inappropriate for law enforcement purposes and appear to breach Article 2.1 and/or Article 1.5 of the CWC, with States Parties consequently being prohibited from developing, producing, stockpiling, transferring or using such means of delivery or dispersal;
- Investigate whether any CWC States Parties have developed, produced, stockpiled, transferred or used large calibre munitions containing RCAs or other inappropriate RCA means of delivery or dispersal;
- Determine what action should be taken against those CWC States Parties that have carried out such activities.

ⁱ This briefing paper has been produced jointly by Bradford Non-Lethal Weapons Research Project (BNLWRP), Omega Research Foundation (ORF) and Africa’s Development and the Threat of Weapons of Mass Destruction Project’ of the Institute for Security Studies (ISS). This paper updates a previous document - The Production and Promotion of 120mm munitions containing CS: A Briefing Note for CWC States Parties attending CSP-15, 29th November 2010 - produced by the three organisations, available at: http://www.brad.ac.uk/acad/nlw/publications/CSP15pape_Crowley.pdf.

ⁱⁱ OPCW, Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (Chemical Weapons Convention); <http://www.opcw.org/chemicalweapons-convention/articles>.

ⁱⁱⁱ MKEK was established in 1950 under Turkish Law No.5591, for the “purpose of producing most of the equipment and tool requirement[s] of the Turkish Armed Forces”, and also for “satisfying the essential needs of the civil industry”. MKEK also takes part in “the International Defence Industry Market by exporting to more than 40 countries.” For further details see MKEK website: <http://www.mkek.gov.tr/english/foHakkimizda.aspx> (accessed 30th September 2010 and 4th April 2011).

^{iv} Foss, C. Turkey details 120mm Automatic Mortar, Janes Defence Weekly, 12th November 2003.

^v Turkish Defence Industry Catalogue (2007) <http://www2.ssm.gov.tr/katalog2007/data/24509/9/uruning/uruning34.html> (accessed 30th September 2010)

^{vi} The 7th International Defense Industry Fair was held by The Turkish Armed Forces Foundation under the auspices of the Turkish Ministry of Defense at the Ankara Hippodrome between 27th - 30th September 2005. Over 400 companies from 49 countries exhibited their goods and services at IDEF, of which 108 were from Turkey.

^{vii} MKEK was promoting the CS mortar round till at least mid-November 2009 on its website, see <http://mkekexport.com/ammunition.htm> (accessed 16th November 2009).

^{viii} AAD 2010 was held at Air Force Base Ysterplaat, Cape Town, South Africa from 21st to 25th September 2010. For further information see AAD 2010 website, <http://www.aadexpo.co.za/> (accessed 28th September 2010).

^{ix} Furkan Defense Industry http://www.furkandefense.com/product_info.php?products_id=147 (last accessed 24th November 2010).

^x Crowley, M. Regulation of incapacitants, riot control agents and their means of delivery under the Chemical Weapons Convention, OPCW, Open Forum Meeting, 29th November 2010, <http://www.cwcoalition.org/wp-content/uploads/2010/12/OPCWopenforumcrowleypresentation.pdf>

^{xi} Letters were sent by BNLWRP, ORF and ISS to representatives of the South African Department of International Relations and Cooperation on 14th March 2011.

^{xii} Meeting between officials from South Africa’s Department of International Relations and Cooperation and a representative of ISS, 11th February 2011.

^{xiii} ASCIM Defense Industry http://www.ascim.com.tr/default.asp?inc=urun_detay&b=b&urun_id=78&Urun_kat=180 (Last accessed 1st March 2010)

^{xiv} Email correspondence between BNLWRP and ASCIM Defense Industry representatives on 2nd -3rd March 2011 (copies on file with author).

^{xv} IHS Janes, Ammunition Handbook 2009-2010 (eds Ness, L. & Williams, A.)

^{xvi} Correspondence dated 13th December 2010, received from Vice President, Ethics and Corporate Responsibility, Thales (copy on file with author).

^{xvii} Correspondence dated 11th January 2011, received from the Export Manager and Director of the Marketing and Export Department, MKE (copy on file with author).

^{xviii} Correspondence dated 21st December 2010, received from the Sub-Directorate for Arms Control and the OSCE, French Ministry of Foreign Affairs (copy on file with author).

xix Article 3: 1. Each State Party shall submit to the Organization, not later than 30 days after this Convention enters into force for it, the following declarations, in which it shall:

(a) With respect to chemical weapons:

(i) Declare whether it owns or possesses any chemical weapons, or whether there are any chemical weapons located in any place under its jurisdiction or control;

(ii) Specify the precise location, aggregate quantity and detailed inventory of chemical weapons it owns or possesses, or that are located in any place under its jurisdiction or control, in accordance with Part IV (A), paragraphs 1 to 3, of the Verification Annex, except for those chemical weapons referred to in sub-subparagraph (iii);...

(iv) Declare whether it has transferred or received, directly or indirectly, any chemical weapons since 1 January 1946 and specify the transfer or receipt of such weapons, in accordance with Part IV (A), paragraph 5, of the Verification Annex;

(v) Provide its general plan for destruction of chemical weapons that it owns or possesses, or that are located in any place under its jurisdiction or control, in accordance with Part IV (A), paragraph 6, of the Verification Annex;

(c) With respect to chemical weapons production facilities:

(i) Declare whether it has or has had any chemical weapons production facility under its ownership or possession, or that is or has been located in any place under its jurisdiction or control at any time since 1 January 1946;

(ii) Specify any chemical weapons production facility it has or has had under its ownership or possession or that is or has been located in any place under its jurisdiction or control at any time since 1 January 1946, in accordance with Part V, paragraph 1, of the Verification Annex, except for those facilities referred to in sub-subparagraph (iii);...

(iv) Declare whether it has transferred or received, directly or indirectly, any equipment for the production of chemical weapons since 1 January 1946 and specify the transfer or receipt of such equipment, in accordance with Part V, paragraphs 3 to 5, of the Verification Annex;

(v) Provide its general plan for destruction of any chemical weapons production facility it owns or possesses, or that is located in any place under its jurisdiction or control, in accordance with Part V, paragraph 6, of the Verification Annex;

xx Article 1, Paragraph 2. Each State Party undertakes to destroy chemical weapons it owns or possesses, or that are located in any place under its jurisdiction or control, in accordance with the provisions of this Convention; Article 1, Paragraph 4. Each State Party undertakes to destroy any chemical weapons production facilities it owns or possesses, or that are located in any place under its jurisdiction or control, in accordance with the provisions of this Convention.

xxi Email correspondence between BNWLRP and the Head of Arms Control and Disarmament Department, Turkish Ministry of Foreign Affairs, 4th April 2011 (Copies on file with author).

xxii For example see, Chayes, A. and Meselson, M. (1997) Proposed Guidelines on the Status of Riot Control Agents and Other Toxic Chemicals Under the Chemical Weapons Convention, Chemical Weapons Convention Bulletin, Volume 35, March 1997.

xxiii OPCW, Chemical Weapons Convention, Article 1.5

xxiv Crowley, M. Dangerous Ambiguities: Regulation of Riot Control Agents and Incapacitants under the Chemical Weapons Convention, Bradford Non-Lethal Weapons Research Project, University of Bradford, October 2009, pp.108-109, <http://www.brad.ac.uk/acad/nlw/publications/BNLWRPDangerous1.pdf>.

xxv See for example: Schneidmiller, C. Danger of "Nonlethal" Agents Grows Amid States' Inaction, Report Says, Global Security Newswire, 6th November 2009, http://gsn.nti.org/gsn/nw_20091106_8443.php; Crowley, M. Toxic traps - weaknesses of the chemical control regime, Janes Intelligence Review, December-January 2009.

xxvi Crowley M. Dangerous Ambiguities: Regulation of incapacitants and riot control agents under the Chemical Weapons Convention, 2nd December 2009, Open Forum, CSP-14, OPCW, The Hague, Netherlands http://www.opcw.org/fileadmin/OPCW/CSP/C-14/open-forum/Dangerous-Ambiguities-Regulation-of-Riot-Control-Agents-and-Incapacitants-under-the-Chemical-Weapons-Convention_Rev.1.pdf

xxvii Crowley, M. (2010) *Op.cit*

xxviii Correspondence dated 16th November 2010, received from the OPCW Legal Advisor (copy on file with author).