E-BOC

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WCO Programme Global Shield (PGS) – E-book No.01

[Training Material for Departmental Use]

Programme Global Shield (PGS)

Note:

- 1. In this E-book, attempts have been made to explain about *Programme Global Shield* (*PGS*). It is expected that it will help departmental officers in their day-to-day work.
- 2. Though all efforts have been made to make this document error free, it is possible that some errors might have crept into the document. If you notice any errors, the same may be brought to the notice of the NACEN, RTI, Kanpur on the Email address: rtinacenkanpur@yahoo.co.in. This may not be a perfect E-book. If you have any suggestion to improve this book, you are requested to forward the same to us.
- 3. This e-book is one of the several e-books dealing with different aspects of WCO Programme Global Shield (PGS). The Programme Global Shield (PGS) is a long term law enforcement initiative of WCO along with its partner organizations, namely, United Nations Office on Drug and Crime (UNODC), International Police Organization (INTERPOL) and member countries. This Programme is aimed at combating the illicit diversion and trafficking of high risk precursor chemicals, which are commonly used by criminal elements/terrorist organizations to make Improvised Explosive Devices (IEDs).
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Sd/-

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Abbreviations

ADD:	Anti-Dumping Duty				
CEN	Custom Enforcement Network				
ICE:	Immigration and Customs Enforcement				
IED:	Improvised Explosive Device				
INTERPOL:	International Police Organization				
ITC (HS):	Indian Trade Classification based on Harmonized System at 8 digits.				
	[Note: ITC (HS) has been issued under Foreign Trade (Development & Regulation) Act, 1992 by the Ministry of Commerce & Industry. It contains details such as commodity description, its HS code and import/export policy whether prohibited or restricted or free; and policy condition relating to the commodity if that commodity is restricted for import or export.]				
MSIHC Rules:	Manufacture, Storage, Import of Hazardous Chemicals Rules, 1989				
	[Note: These rules have been issued under Section 6, 8, and 25 of the Environment (Protection) Act, 1986 (29 of 1986) by the Department of Environment, Forest and Wildlife under the Ministry of Environment and Forests]				
PESO:	Petroleum Explosives & Safety Organization				
PGS:	Programme Global Shield				
UNODC:	United Nations Office on Drug and Crime				
EU:	European Union				
WCO:	World Customs Organization				

1. Introduction:

- 1.1. Programme Global Shield (PGS) is a long term law enforcement initiative aimed at combating the illicit diversion and trafficking of high risk precursor chemicals used to manufacture explosives. It aims to prevent the smuggling of precursor chemicals that could be used to build improvised explosive devices (IEDs). Fourteen chemicals have been identified as precursor chemicals, which are commonly used to manufacture Improvised Explosive Device (or home-made Bombs). IEDs are inexpensive and can be easily manufactured, concealed, and detonated. These are frequently being used by criminal organizations or terrorists to intimidate, inflict casualties, and destabilize governments.
- 1.2. It was first started in November, 2010 as 6-month pilot project by U.S. Immigration and Customs Enforcement (ICE). Now, it has become a long term Programme of World Customs Organization (WCO) in partnership with the United Nations Office on Drugs and Crime (UNODC), INTERPOL and International Community.
- 1.3. As we are aware, Improvised Explosive Devices (IEDs) are the most prevalent form of explosives employed by terrorists around the world. They are manufactured using widely available precursor chemicals. It is a cheap and easy way to inflict harm on infrastructures, economies, and populations.
- 1.4. Under the Programme, information on shipments of these chemicals are shared among countries and international organization so that trade in these chemicals for legitimate purposes continue and threat posed to international community on account of illegitimate use of these chemical is effectively addressed.
- 1.5. The essence of the PGS lies on sharing intelligence and information on movement of these chemicals on real time basis. This enables and equips partner countries to identify whether or not shipments are legitimate. Other key components of Programme Global Shield include interdiction, investigative efforts, training, and industry outreach.

2. Mission

- 2.1 Programme Global Shield has three main goals that it seeks to accomplish:-
 - To identify and interdict falsely declared explosive precursor chemicals,
 - To initiate investigations of smuggled or illegally diverted IED materials, and
 - To uncover the smuggling and procurement networks that foster illicit trade.

3. Objectives of the Programme Global Shield

- 3.1 The objectives of Programme Global Shield are as under:-
 - Promote cooperation among Customs and Police Administrations in combating the illicit diversion of precursor chemicals;
 - Raise global awareness of the increased threat posed by precursor chemicals;
 - Engage with private industry players to establish best practice programmes to avoid illicit diversion of precursor chemical;
 - Train customs officers in the detection/handling of precursor chemicals;
 - Identify and seize illicit shipments of precursor chemicals and communicate these seizures to other programme participants;
 - Initiate investigations and other enforcement activities regarding illicit shipments (backtracking investigations);
 - Identify and share best practices to combat the illicit diversion and trafficking of precursor chemicals used to manufacture explosives;
 - Monitor and track legitimate shipments of precursor chemicals to identify the patterns, diversity, and extent of licit international trade; and
 - Facilitate legitimate trade in precursor chemicals through risk-based targeting

4. Precursor Chemicals to Be Monitored

4.1 Nowadays, news about loss of life and property due to IED blast have become common and frequent. No country in the world is safe from threat of use of IEDs by terrorist and other criminal organizations. Recently, the world has witnessed an increase in the use of improvised explosive devices (IEDs) and other homemade explosive devices manufactured from the illicit diversion and trafficking of precursor chemical shipments.

4.2 Programme Global Shield focuses on the high risk precursor chemicals as identified by industry experts as posing the greatest threat for use as explosives. The Precursor chemicals to IED, their chemical name, other common names, HS code and CAS code, common use are summarized in the table below:-

Name of Chemical	Other Names	HS Code	CAS Code	Appearance	Common Use
Ammonium Nitrate	High Nitrogen	310230	6484-52-2	White solid	Instant cold packs, high- nitrogen fertilizer inAgriculture
Acetic Anhydride	Ethanoic Anhydride	291524	108-24-7	Clear liquid	Photographic film & other coated materials,production of aspirin, wood preservative, production of modified starches, synthesis of heroin
Acetone	Dimethylformalde hyde, Dimethyl Ketone β -Ketopropane, 2-Propanone	291411	67-64-1, 7217-25-6	Colorless liquid	Cleaning solvent, component of some paints and varnishes, nail polish remover, superglue remover
Urea	Carbamide, carbonyl diamide, carbonyldiamine, diaminomethanal, diaminomethanone	310210	57-13-6	White solid	Nitrogen-releasefertilizer, raw material for the chemical industry
Aluminium Powder & Flakes		760310 760320	7429-90-5	Powder, Flakes	Used in various applications of pyrotechnics, including the creation of fireworks displays, creation of wooden furniture and floors
Hydrogen Peroxide	Dioxidane	284700	7722-84-1	Pale blue liquid	Bleach, disinfectant, antiseptic, oxidizer
Nitric Acid	Aqua fortis, Salpetre acid, Spirit of nitre	280800	7697-37-2, 43625-06-5, 13587-52-5	Clear, colorless liquid	Fertilizers, purification and extraction of gold, chemical synthesis
Nitromethane	Nitrocarbol	290420	75-52-5	Colorless liquid	Industrial solvent, cleaning solvent, pharmaceuticals, pesticides, explosives, fibers, coatings and racing fuel, dry cleaning, degreaser, solvent for superglue.
Potassium Chlorate	Potcrate	282919	3811-04-9	White crystals or powder	Disinfectant, safety matches, explosives andfireworks, oxidizing agent, pesticide

Table-I

Potassium Nitrate	Saltpetre, Nitrate of potash, vesta powder	283421	7757-79-1	White solid	Fertilizers, rocket propellants, fireworks, food additive, pre-rolled cigarettes, tree stump remover
Potassium Perchlorate	Potassium chlorate, Perchloric acid, potassium salt peroidin	282990	7778-74-7	Colorless/whi te crystalline powder	Fireworks,ammunition percussion caps,explosive primers, propellants, flash compositions, stars, sparklers
Sodium Chlorate		282911	7775-09-9	White solid	Herbicide, defoliant and desiccant
Sodium Nitrate	Caliche, Chile Saltpeter	310250	7631-99-4	White solid	Color fixative and preservative in meats and fish, dyeing and printing textile fabrics and bleaching fibers, manufacture of rubber chemicals, corrosion inhibitor
Calcium Ammonium Nitrate		310260	15245-12-2	White solid	Fertilizer

[Source: WCO booklet on PGS]

5. Indian legal Position on Import and Export of Precursor Chemicals.

5.1 The existing legal controls in India on the 14 precursor chemicals can be summarized as under:-

Table II

<mark>Sr.</mark>	Chemical Name	ITC (HS) Restriction		Applicable Indian Laws	
<mark>No.</mark>		Import	Export	ipplease mean but o	
1.	Ammonium Nitrate [For more details of legislative controls on import/ export of AN, refer to e-book on Ammonium Nitrate]	Yes	No	 It has been declared as "Deemed explosive" under the Explosive Act, 1884 The Ammonium Nitrate Rules, 2012 have been framed to provide various controls on manufacture, import, export, transportation etc. of Ammonium Nitrate. It is restricted item for Import under ITC (HS) issued under Foreign Trade (Development & Regulation) Act, 1992. It is also considered as hazardous chemical under Manufacture, storage, Import of Hazardous Chemicals (covered at Sr. No. 33 under Part II of Schedule I of MSIHC Rules, 1989] 	
2.	Nitromethane	No	No		
3.	Sodium Nitrate	No	No		

4.	Potassium Nitrate	No <mark>*</mark>	No	
5.	Sodium Chlorate	No <mark>*</mark>	No	It is considered as hazardous chemical under Manufacture, storage, Import of Hazardous Chemicals Rules,1989. It is listed at Sr. No. 568 under Part II of Schedule I of MSIHC Rules, 1989]
6.	Potassium Chlorate	No <mark>*</mark>	No	It is considered as hazardous chemical under the Manufacture, storage and Import of Hazardous Chemicals Rules,1989. It is listed at Sr. No. 520 under Part II of Schedule I of MSIHC Rules, 1989.
7.	Potassium Perchlorate Perchloric Acid}	No	No	It is considered as hazardous chemical under the Manufacture, storage and Import of Hazardous Chemicals Rules, 1989. It is listed at Sr. No. 478 under Part II of Schedule I of MSIHC Rules, 1989.
8	Acetone 😭	No <mark>*</mark>	No	It is considered as hazardous chemical under the Manufacture, storage and Import of Hazardous Chemicals Rules, 1989. It is listed at Sr. No. 4 under Part II of Schedule I of MSIHC Rules, 1989]
9.	Hydrogen Peroxide	No <mark>*</mark>	No	It is considered as hazardous chemical under the Manufacture, storage and Import of Hazardous Chemicals Rules,1989. It is listed at Sr. No. 318 under Part II of Schedule I of MSIHC Rules, 1989.
10.	Nitric Acid	No.	No	It is considered as hazardous chemical under the Manufacture, storage and Import of Hazardous Chemicals Rules,1989. It is listed at Sr. No. 423 under Part II of Schedule I of MSIHC Rules, 1989]
11.	Urea [For more details on legislative controls on import/export of Urea, refer to e-book on Urea].	Yes	Yes	Fertilizer Control Order, 1985
12.	Aluminium Powder	No	No	It is considered as hazardous chemical under the Manufacture, storage and Import of Hazardous Chemicals Rules,1989. It is listed at Sr. No. 19 under Part II of Schedule I of MSIHC Rules, 1989]
13.	Calcium Ammonium Nitrate	No	No	
14.	Acetic Anhydride [For more details of legislative control on import/export of Acetic Anbydride, refer to e-book on Acetic Anhydride.]	Yes	No. But require NOC from Narcotics Commissio ner of India, Gwalior.	 Narcotics Drugs and Psychotropic Substances Act ,1985 It has been declared as specified goods under Section 11 C of the Customs Act, 1962 It is restricted for Import under ITC (HS) read with FT (D &R) Act, 1992. It is considered as hazardous chemical under the Manufacture, storage and Import of Hazardous Chemicals Rules,1989. It is listed at Sr. No. 3 under Part II of Schedule I of MSIHC Rules, 1989

Note:-

* means that no objection certificate is required from Assistant Drug controller if the item being imported is Pharmaceutical grade/ drugs/medicines/cosmetics etc.

means that the product in question is subjected to imposition of Anti-dumping duty. Out of 14 Precursor Chemicals mentioned above, two chemicals namely, Acetone and Sodium Nitrate are subjected to imposition of Anti-dumping duty. The details of antidumping duty imposed are as under:

(i) Acetone: It is subjected to imposition of anti-dumping duty if originating in or exported from Chinese Taipei (vide notification Nos. 44/2011-Customs, dated 27.05.2011 and 14/2013-Customs (ADD), dated 3.7.2013); Korea RP (vide notification No. 5/2015-Customs (ADD), dated 18.02.2015); Thailand and Japan (vide notification No. 36/2011-Customs, dated 18.04.2011); European Union, South Africa, Singapore and United States of America (vide notification No. 10/2014-Customs (ADD), dated 11.03.2014).

(ii) **Sodium Nitrate**: It is subjected to imposition of anti-dumping duty if originating in or exported from European Union, People's republic of China, Ukraine and Korea RP vide notification No. 3/2015-Customs (ADD), dated 10.02.2015 and 14/2014-Customs (ADD), dated 19.03.2014).

6. Problem of IEDs in India

- 6.1 India has been facing problem of IEDs blast for several decades and the problem of IEDs in India can be understood by a recent Parliament Question and Hon'ble Minister written reply to the Rajya Sabha (Upper House).
- 6.2 On 29.04.2014, in a written reply to a Parliament Question, Minister of State for Home said that as many as 190 IED explosions have taken place in the country in 2014, including 98 blasts in Maoists-hit states. The Minister said that 55% of these explosions were targeted towards general public, 38% towards security forces, 4% towards government properties and 3% of such explosions were targeted towards VIPs. In 92% cases, high-grade explosives were used and in 8 per cent cases, low grade explosives were used, he said. *Further, as per the data available with National Bomb Data Centre, India has witnessed 190* IED explosions in 2014 of which 61 were in Northeastern states, 98 in Left Wing Extremism affected states, 19 in Jammu and Kashmir and 12 in other parts of the country.

- 6.3 With regards to steps taken to control sale and stocking of explosives and detonators and monitoring of its end use, it was informed by the Hon'ble Minister to the Indian Parliament that the manufacture, storage, sale, use and transportation of explosives and detonators are administered under Explosives Act, 1884. The Petroleum & Explosives Safety Organization (PESO), Nagpur monitors the production, sale and use of explosives and scrutinizes the quarterly returns submitted by all licensees through online scrutiny module. The online facility has been made available to all the District Magistrates and Superintendents of Police of all the Districts to view transactions and movement of explosives in their respective jurisdictions. The PESO has taken the following steps to monitor the storage, sale, use and transportation of explosives:-
 - (i) The seller of explosives has to deliver the explosives at the consignee's premises to prevent diversion of consignment of explosives.
 - (ii) The forwarding of the Explosives Delivery Pass to the respective Police and District Authorities made compulsory.
 - (iii) Escorting of the explosives vans by two armed guards made mandatory while in transit.
 - (iv) Antecedent verification of driver of the explosives van made compulsory.
 - (v) Use of GPS devices on the explosives transportation vans except vans transporting Electric Detonators to track the movement.
 - (vi) Written authorization with photo identity was made compulsory for the authorized representative of the consignee for receipt of the consignment of explosives.

7. India's Import and Export of PGS Chemicals

7.1 Every year significant quantities of PGS Chemicals are imported and exported from India. Customs officers can play important role in carefully examining import/export documents as well as shipments of PGS Chemicals and ensuring that import and exports of these chemicals is in accordance with statutory provisions and use of these chemicals is for legitimate purposes only. The details of import/export of PGS chemicals and details of importing/exporting countries are given in the following tables.

Details of Import of PGS Chemicals into India 7.2

	Table III						
Sl. No.	Chemical	2013	2014	Imported From			
1	Acetic Anhydride	1542 (MTS)	2334 (MTS)	United State, Singapore			
2.	Acetone	249671 (MTS)	257372 (MTS)	Taiwan, Thailand			
3.	Aluminum Powder	3609 (KGS)	5694 (KGS)	Germany, United Kingdom			
4.	Ammonium Nitrate	49453 (MTS)	51866 (MTS)	Russia, Iran			
5.	Calcium Ammonium Nitrate	22009 (MTS)	252942 (MTS)	China, Norway			
6.	Hydrogen Peroxide	54855 (MTS)	52376 (MTS)	Tanzania, Taiwan			
7.	Nitric Acid	15669 (KGS)	16026 (KGS)	Germany, United States			
8.	Nitromethane	3.21 (MTS)	792 (MTS)	Korea, China			
9	Potassium Chlorate	6209 (MTS)	5072 (MTS)	China, Germany			
10	Potassium Nitrate	3168 (PCS)	2009 (PCS)	Germany, United States			
11.	Potassium Perchlorate	689 (MTS)	352 (MTS)	Germany, Belgium			
12	Sodium Chlorate	23540 (MTS)	20797 (MTS)	Sweden, China			
13.	Sodium Nitrate	3321 (MTS)	1265 (MTS)	United States, China			
14	Urea	6925571 (MTS)	6125324 (MTS)	China, UAE			

7.3 Details of Export of PGS Chemicals from India

<mark>Table IV</mark>

SL NO.	CHEMICAL	2013	2014	Exported to
1	Acetic Anhydride	8355 (MTS)	28647 (MTS)	Belgium, Bangladesh
2	Acetone	273 (MTS)	1392 (MTS)	UAE, Nepal
3	Aluminum Powder	1429 (MTS)	1918 (MTS)	Turkey, Hong Kong
4	Ammonium Nitrate	63227 (MTS)	40106 (MTS)	Oman, Ethopia
5	Calcium Ammonium Nitrate	4635 (MTS)	NIL	Mozambique
6	Hydrogen Peroxide	424 (MTS)	198 (MTS)	Nepal, Bahrain
7	Nitric Acid	16410 (MTS)	25430 (MTS)	Australia, Indonesia
8	Nitromethane	104 (MTS)	162 (MTS)	Pakistan, United States
9	Potassium Chlorate	503 (MTS)	486 (MTS)	United States, Philipphines
10	Potassium Nitrate	1439 (MTS)	1118 (MTS)	United States, Thailand
11	Potassium Perchlorate	388 (MTS)	672 (MTS)	Iran, Brazil
12	Sodium Chlorate	13.20 (MTS)	15.93 (MTS)	Australia, New Zealand
13	Sodium Nitrate	46.80 (MTS)	100.30 (MTS)	Singapore, UAE
14	Urea	10.10 (MTS)	34.60 (MTS)	United States, Maldives

8. Role of Customs Officer/ Police Officer in ensuring legitimate use of PGS Chemicals

8.1 It is responsibility of all stake holders such as manufacturer, exporter, importer, wholesale dealer, transporters etc., who deal with these precursor chemicals in one way or other and all enforcement/ regulatory authorities including Customs authorities and Police authorities, which have responsibility to enforce legal controls, to ensure that the precursor Chemicals for IEDs are used for legitimate purposes only. Necessary precautions and due diligence, if taken, can prevent these chemicals from falling into hands of criminal elements. This is how we can make the world safe and effectively contribute towards safety and security of all.

9. Specific Legislation by EU to Deal with Explosive Precursors

9.1 At present, India do not have any specific or single legislation providing for controls on use or possession of precursor chemicals, which are commonly used for making IEDs. Some controls can be found on these precursors under some national legislations enacted for addressing the concerns other than IED concerns. For example, Urea is subject to certain control under the Fertilizer (Control) Order, 1985; and Acetic Anhydride is subject to control to prevent it being used for manufacture of narcotics drugs. Some explosive precursor chemicals are considered to be hazardous chemicals and subject to control under the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 issued under the Environment Protection Act, 1986.

9.2 With regard to international efforts to enact specific legislation to deal with explosive precursors, it is noticed that European Union (EU) on 15.01.2013 has adopted the Regulation (EU) No. 98/2013 dealing with controls on possession and use of explosive precursors.

9.3 This Regulation establishes harmonised rules concerning the making available, introduction, possession and use of substances or mixtures that could be misused for the illicit manufacture of explosives, with a view to limiting their availability to the general public, and ensuring the appropriate reporting of suspicious transactions throughout the supply chain. The complete text of regulation No. 98/2013 may be downloaded using the following link:

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:039:0001:0011:EN:PDF

9.4 Under the above said legislation by EU, the two types of controls have been prescribed for the explosives precursors:

(1) Substances which shall not be made available to members of the general public on their own, or in mixtures or substances including them, except if the concentration is equal to or lower than the limit values set out below:

Abstracts Service Registry number (CAS RN)	Limit value	Combined Nomenclature (CN) code for a separate chemically defined compound meeting the requirements of Note 1 to Chapter 28 or 29 of the CN, respectively (1)	Combined Nomenclature (CN) code for a mixture without constituents (e.g. mercury, precious or rare-earth metals or radioactive substances) which would determine classification under another CN code (1)
Hydrogen peroxide (CAS RN 7722-84-1)	12 % w/w	2847 00 00	3824 90 97
Nitromethane (CAS RN 75-52-5)	30 % w/w	2904 20 00	3824 90 97
Nitric acid (CAS RN 7697-37-2)	3 % w/w	2808 00 00	3824 90 97
Potassium chlorate (CAS RN 3811-04-9)	40 % w/w	2829 19 00	3824 90 97
Potassium perchlorate (CAS RN 7778-74-7)	40 % w/w	2829 90 10	3824 90 97
Sodium chlorate (CAS RN 7775-09-9)	40 % w/w	2829 11 00	3824 90 97
Sodium perchlorate (CAS RN 7601-89-0)	40 % w/w	2829 90 10	3824 90 97

(2) Substances on their own or in mixtures or in substances for which suspicious transactions shall be reported

Name of the substance and Chemical Abstracts Service Registry number (CAS RN)	Combined Nomenclature (CN) code for a separate chemically defined compound meeting the requirements of Note 1 to Chapter 28, Note 1 to Chapter 29 or Note 1(b) to Chapter 31 of the CN, respectively (1)	Combined Nomenclature (CN) code for mixtures without constituents (e.g. mercury, precious or rare- earth metals or radioactive substances) which would determine classification under another CN code (1)
Hexamine (CAS RN 100-97-0)	2921 29 00	3824 90 97
Sulphuric acid (CAS RN 7664-93-9)	2807 00 10	3824 90 97
Acetone (CAS RN 67-64-1)	2914 11 00	3824 90 97
Potassium nitrate (CAS RN 7757-79-1)	2834 21 00	3824 90 97
Sodium nitrate (CAS RN 7631-99-4)	3102 50 10 (natural)	3824 90 97
Calcium nitrate (CAS RN 10124-37-5)	2834 29 80	3824 90 97
Calcium ammonium nitrate (CAS RN 15245-12-2)	3102 60 00	3824 90 97
Ammonium nitrate (CAS RN 6484-52-2) [in concentration of 16 % by weight of nitrogen in relation to ammonium nitrate or higher]	3102 30 10 (in aqueous solution) 3102 30 90 (other)	3824 90 97

[Source: EU Regulation No.98/2013]
