



HMX

KNOW-HOW ENGINEERING • PRODUCTION OF HIGH EXPLOSIVES • DELABORATION OF AMMUNITION



Prva iskra – namenska proizvodnja a.d. is producing all kinds of high explosives whose quality is in line with world standards in this area, GOST, MIL and STANAG, or according to customer's special requests. HMX has a very high detonation speed and thermal stability. It is very stable and requires a powerful detonator or booster charge to detonate. HMX appears in four modifications, of which only the β -modification displays a particularly high density and hence also a particularly fast detonation rate. Basic application of pure HMX is in the production of detonating cords and shock tubes which are thermally stable in temperatures up to 300 °C.

PRODUCT DESCRIPTION

- Chemical name: Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
- Synonyms: Octogen, HMX, Cyclotetramethylene-tetranitramine
- Chemical formula: C₄H₈N₈O₈
- CAS number: 2691-41-0
- UN PSN: UN 0226 HMX, WETTED 1.1D



PRVAISKRA-NAMENSKA.COM



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Phlegmatized HMX is used in the production of explosive charges for anti-aircraft missile projectiles, anti-tank rocket and artillery projectiles with explosive and cumulative effect as well as for oil well perforating charges. A mixture of HMX and a polymer adhesive, known as PBX, is used in the production of a new generation of cumulative rocket projectiles, the so-called insensitive munitions.

CHARACTERISTICS

Crystal Density, g/cm ³ :	1.908
Detonation Velocity, m/s:	9.100
Oxygen Balance, % (m/m):	-21.6
Heat of Explosion, kJ/kg:	6.192
Impact Sensitivity, N/m:	7,4
Friction Sensitivity, N:	120

TECHNICAL SPECIFICATION

Content of HMX, % (m/m), min:	98
Content of RDX, % (m/m), max:	2
Insoluble in Acetone, % (m/m), max:	0.05
Melting Point, °C, min:	277
Content of Ash, % (m/m), max:	0.03
Acidity as CH ₃ COOH, % (m/m), max:	0.02
Particle Size:	large range

COMPOSITIONS BASED ON HMX

Product	Ingredients	Content, % (m/m)
FO-4,5	HMX / Wax	95,5 / 4,5
FO-3,5 (OKΦOЛ-3,5)	HMX / Wax	96,5 / 3,5
HMX/Wax/Graphite (OWC)	HMX / Wax / Graphite	94,5 / 4,5 / 1,0
HMX/Wax/Graphite (OWC) *for oil well perforating charges	HMX / Wax / Graphite	98,5 / 1,0 / 0,5
Octol 70/30 75/25	HMX / TNT	70 / 30 75 / 25
LX-14	HMX / Estane	95 / 5

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