RDX

Explosives

RDX is extremely strong and, when dry, it is very sensitive to impact, friction and static electricity. RDX has high chemical durability and thermal resistance. Due to high volatility pure RDX is used for detonators, amplifiers and transporters and, as a composite with TNT and wax, for casting and pressing of warheads, artillery munitions and missile assets.
RDX is phlegmatized by various phlegmatizer types to increase resistance to impact and friction.

PRODUCT DESCRITPION :

- Chemical name: Hexahydro-1,3,5-trinitro-1,3,5-triazine
- Synonyms: Hexogen, RDX, Cyclonite, Cyclotrimethylenetrinitramine
- Chemical formula: C3H6N606
- CAS number: 121-82-4
- UN PSN: UN 0072 RDX, WETTED 1.ID

As a military explosive, RDX can be used alone as a base charge for detonators or mixed with another explosive such as TNT to form cyclotols, which produce a bursting charge for aerial bombs, mines, and torpedoes.
Common military uses of RDX have been as an ingredient in plastic bonded explosives. Civilian applications of RDX include use in pyrotechnics (cap-relay, cutting cords, detonators).

CHARACTERISTICS :

• Crystal Density, g/cm^3:	1.816
• Detonation Velocity, m/s:	8.750
• Oxygen Balance, % (m/m):	-21.6
• Heat of Explosion, kJ/kg:	5.723
• Impact Sensitivity, N/m:	7,5
• Friction Sensitivity, N:	120

TECHNICAL SPECIFICATION :

• Color and appearance	White crystal, without mechanical impurities	
• Melting point, °C, min	200	190
• Insoluble in acetone, % (m/m), max	0,05	0,05
• Content of Ash, % (m/m), max	0,03	0,03
• Acidity as HN03, %(m/m), max	0,05	/
• Acidity as CH3COOH, % (m/m), max	/	0,02
• Content of HMX (3 modification), %(m/m)	0,0-5,0	4,0-17,0
• Granulation	Large range	

COMPOSITIONS BASED ON RDX :

Product	Ingredients	Content, % (m/m)
• FH-5 (A-IX-1; rEKQO/1-5,5)	RDX/Wax	94,5 / 5,5
• FH-2,5	RDX/Wax	97,5 / 2,5
• RDX/Wax/Graphite (OWC)	RDX/Wax/Graphite	94,5/4,5/1,0
• RDX/Wax/Graphite (OWC)		
• *for oil well perforating charges	RDX/Wax/Graphite	98,5/1,0/0,5
• Composition B	RDX /TNT /Wax	59,5/39,5/ 1,0
• Composition A-3 | A-4	RDX/Wax	91/9 | 97/3
• Composition A-5	RDX/Stearic Acid	98,5/1,5