# APPENDIX D: Properties of Pure Explosive Compounds

| EXPLOSIVE | CHEMICAL NAME | PROPERTIES | INITIATION SENSITIVITY | | | |
|---|---|---|---|---|---|---|
| | | | IMPACT | | FRICTION (NEWTON)[1] | ELECTROSTATIC (JOULES)[2,3] |
| | | | (Newton-meters)[1] | LASL[2] (cm) | | |
| TNT | 2,4,6-trinitrotoluene | Pale yellow crystals if granulated, or flakes. Density of crystals: 1.65 g-cm$^{-3}$ MP = 80.2°C (176.4°F) | 15 | 157 | >353 | 0.46-2.75 |
| RDX | hexahydro-1,3,5-trinitro-1,3,5-triazocine | Colorless crystals Density: 1.82g-cm$^{-3}$ MP = 204°C (399°F) | 7.5 | 23.3 | 120 | 0.22-0.55 |
| HMX | octahydro-1,3,5,7-tetranitro-1,3,5,7-tetraazocine | Colorless crystals Density: 1.96g-cm$^{-3}$ (β modification) MP = 275°C (527°F) | 7.4 | 26.1 | 120 | 0.20-1.03 |
| PETN | Pentaerythritol tetranitrate | Colorless crystals Density: 1.76g-cm$^{-3}$ MP = 141.3°C (286.3°F) | 3 | 12.5 | 60 | 0.19-0.36 |

NOTES:
1 (Kohler and Meyer 1993)
2 (Gibbs and Popolato 1980)
3 Results for a brass electrode.