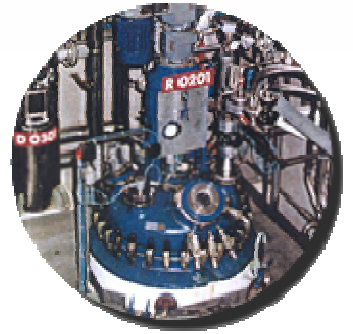


For more than 10 years, our R&D teams perform research and development of new energetic substances to satisfy the future requirements of our customers. Leading worldwide specialist in the field of high explosives, EURENCO offers further new energetic molecules such as GAP DIOL, manufactured thanks to its modern multipurpose units.



PRODUCT

- Trade name: GAP DIOL
- Chemical name: glycidyl azide polymer
- Chemical formula: $\text{HO}-(\text{CH}_2-\text{CH}(\text{CH}_2\text{N}_3)\text{O})_n-\text{H}$
- Energetic resin based on polyether diol and grafted with azido energetic groups in the chain

CHARACTERISTICS

- Density: 1.24 - 1.29
- Impact sensitivity (ISI): 41 J
- Mean molecular weight: ~ 2000

USES

GAP DIOL is used as binder in energetic materials, such as:

- High energetic composite rocket propellant grains,
- Cast PBX charges,
- LOVA propellants,
- Gas generators for automotive safety,
- Energetic materials for pyrotechnic devices and systems.

RESULTS

The presence of an azido group N_3 in the chain leads to:

- Higher impulse and detonation velocity due to the higher enthalpy of formation of the molecule: + 280 cal/g compared to + 5 cal/g for HTPB,
- Higher burning rate, especially with AP,
- High gas yield (for gas generators).

EURENCO

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