

BUTACENE[®] 800

SPACE PROPULSION

- › LAUNCHER
- › TACTICAL PROPULSION
- › CHEMICAL INTERMEDIATE USED FOR HIGH BURNING RATE COMPOSITE PROPELLANTS



BUTACENE® 800

SPACE PROPULSION

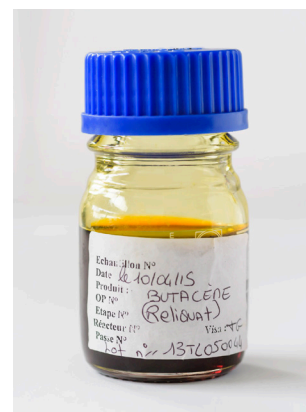
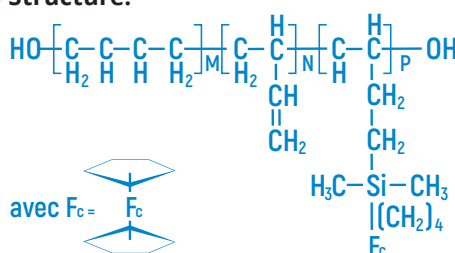
BUTACENE® was developed by ArianeGroup to find a solution to improve the properties of the high burning rate.

Among the different ferrocene derivatives used to achieve high burning rates, BUTACENE® solves the migration and sublimation issues while leading to good feasibility, and to good mechanical, ballistic, aging and safety properties.

› **Chemical Name:** Hydroxy Terminated Polybutadiene grafted with a (ferrocenyl-4 butyl) dimethyl silane.

› **CAS Number:** 125856-62-4

› **Structure:**



Typical Analysis

Chemical Properties

| Tests | Units | Requirements | Test Methods |
|-----------------------------|---|-----------------------------------|--------------------|
| Aspect | | Clear brown orange viscous liquid | Visual control |
| Hydroxyle value | eq/kg | 0,32 ± 0,05 | Acetylation method |
| Iron content | % | 8,0 ± 0,5 | ICP |
| Moisture content | % | ≤ 0,10 | Karl Fischer |
| Solvent content | % | ≤ 0,20 | Gas chromatography |
| Butylferrocene content | % | ≤ 0,50 | Gas chromatography |
| Antioxidant content (ionol) | % | 1,0 ± 0,2 | Gas chromatography |
| Glass transition | °C | -55 ± 5 | DSC |
| Density | | # 1 (at 20°C) | |
| Solubility | Insoluble in water, soluble in toluene, hexane and chlorinated solvents | | |

REGULATORY INFORMATION

Packaging and Storage:

- › BUTACENE® is packaged in a steel drum of 10 kg or 30 kg, with inert gas.
- › Store in its original unopened container, keep away from heat (temperature < 40°C), air and light.

NOTE: BUTACENE® 800 is classified MTCR (Missile Technology Control Regime)

Regulatory information:

See SDS

- › [EC Regulation n°1272/2008 (CLP) and Directive 67/548/EEC]
- › The substance is not classified as dangerous
- › Precautionary statements P422, P280, P202, P501, P308+P350, P285

CONTACT

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