THIONYL CHLORIDE

Formula: SOCl₂
MW: 119.0
ENOS (化学物质番号): 1-018
TSCA: Registered
EINECS: Registered
CAS Reg. No.: 7719-09-7

1. Typical Analysis
(1) Appearance: Clear Liquid with pale yellow tint
(2) Specific gravity: 1.64 - 1.67
(3) Fraction from 75 to 80°C: 95% vol. min.
(4) Clarity of benzene solution: Substantially clear
(5) Ignition residue as sulfate: 0.01% wt. max.
(6) Phosphorus as PO₄: 0.001% wt. max.

2. Physical Properties
(1) Odour: Pungent odour
(2) Boiling point: 760°C
(3) Melting point: -104.5°C
(4) Vapor density at boiling point: 4.16 g/L
(5) Viscosity: 0.801 mPa·s (0°C)
(6) Latent heat capacity: 283.2 J/g
(7) Specific heat capacity: 1.00 J/g°C
(8) Expansion coefficient: 0.006°C
(9) Refractive index: 1.517 (nD)
(10) Dielectric constant: 9.25 (20°C)
(11) Conductivity: 2 × 10⁻⁸ S·cm⁻¹ (25°C)

3. Toxicity
LC₅₀: 500ppm·h (inhalation rat)

4. Packing
(1) 300kg drum

5. Storage & Handling Precautions
Handling: Handle this material, wearing goggles and gloves to avoid contact with eyes and skin, under well ventilated condition.
In addition, precautionary measures must be adopted to ensure that the vapour cannot be inhaled.
Avoid rough handling or dropping.
Storage: Store under cool and dry condition away from the sun and source of heat.
If Thionyl chloride come into contact with humid air or small amount of water, hydrogen chloride and sulfur dioxide is formed by violent reaction. Therefore, it must be protected from moisture.

6. Applications
(1) Chlorinating agent
(2) Dehydrating agent

Please read MSDS before handling this material.

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