

## Specification for White Spirit (Solvent 402)

**Prepared by:** ATDM Co.

**Product Name:** White Spirit (Solvent 402)

**Synonyms:** Mineral Spirits, Solvent 402

**CAS Number:** 8052-41-3

**Molecular Formula:** C<sub>10</sub>H<sub>22</sub>

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### 1. General Information

- **Appearance:** Clear, colorless liquid
- **Odor:** Characteristic solvent odor
- **Product Code:** [Product Code]
- **Packaging:** Available in various packaging sizes including drums, cans, and bulk containers.

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### 2. Chemical Properties

- **Flash Point:** 38°C (100°F)
- **Boiling Point:** 140-200°C (284-392°F)
- **Density:** 0.79-0.81 g/cm<sup>3</sup>
- **Viscosity:** 0.5-0.6 cP @ 20°C
- **Solubility:** Insoluble in water, soluble in organic solvents.
- **Vapor Pressure:** 0.5 mm Hg @ 20°C
- **Evaporation Rate:** Similar to n-butyl acetate

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### 3. Physical and Chemical Characteristics

Property	Specification
Color	Clear, Colorless
Odor	Characteristic solvent odor
Flash Point	38°C (100°F)
Boiling Range	140-200°C (284-392°F)
Density	0.79-0.81 g/cm <sup>3</sup>

Property	Specification
Specific Gravity	0.79-0.81
Refractive Index	1.45 - 1.47
Solubility	Insoluble in water, soluble in organic solvents

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#### 4. Purity and Composition

Component	Percentage
Aliphatic Hydrocarbons	60-80%
Aromatic Hydrocarbons	5-15%
Others	<5%

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#### 5. Impurities

- Water Content:  $\leq 0.1\%$
  - Sulfur Content:  $\leq 0.1\%$
  - Acidity:  $\leq 0.05\%$  (as acetic acid)
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#### 6. Performance Specifications

- Purity: 99.5% minimum (aliphatic hydrocarbons)
  - Aromatic Content:  $\leq 10\%$
  - Residue on Evaporation:  $\leq 0.1\%$
  - Color (Saybolt): 30 minimum
  - Distillation Range (at 760 mmHg): 140-200°C (284-392°F)
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#### 7. Health and Safety

- Hazard Class: Flammable Liquid (Category 2)
  - Precautions:
    - Handle in a well-ventilated area.
    - Avoid inhalation of vapors.
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- Avoid skin and eye contact.
  - Use proper protective equipment (gloves, goggles, respiratory protection).
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## 8. Storage and Handling

- Storage Conditions:
    - Store in a cool, dry place away from heat, sparks, and open flames.
    - Keep containers tightly closed.
    - Avoid exposure to direct sunlight.
  - Shelf Life: 12 months from date of manufacture when stored properly.
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## 9. Regulatory Compliance

- CAS Number: 8052-41-3
  - REACH Compliance: This product complies with the EU REACH regulation.
  - TSCA Compliance: This product is listed on the TSCA inventory.
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## 10. Applications

- Paint Thinning: Used as a thinner for oil-based paints and varnishes.
  - Cleaning Agent: Ideal for cleaning brushes, rollers, and equipment used in painting.
  - Degreasing: Effective for degreasing machinery and parts.
  - General Solvent: Suitable for use in various industrial and household applications.
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## 11. Packaging Options

- Standard Packaging:
    - 1-liter, 4-liter, 10-liter cans
    - 200-liter drums
    - Bulk containers available upon request.
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Prepared by: ATDM Co.  
Date Prepared: 2025.01.02