

MATERIAL SAFETY DATA SHEET • MSDS



SECTION I • PRODUCT IDENTIFICATION

| | |
|---------------------------------------|---|
| TRADE NAME | FORMULA 1, HARDENER |
| ANAMET PRODUCT NUMBER | 206-H |
| CHEMICAL NAME | |
| MANUFACTURER / SUPPLIER'S NAME | ANAMET |
| ADDRESS | P.O. Box 538 BOUCHERVILLE, QUÉBEC, J4B 6Y2 |
| TELEPHONE NO. | (450) 646-1290 |
| EMERGENCY TELEPHONE NO. | CANUTEC (613) 996-6666 |

SECTION II • COMPOSITION / INFORMATION ON COMPONENTS

| Chemical characterization Description | CAS number | % | OSHA PEL (mg/m ³) | ACGIH TLV (mg/m ³) |
|--|------------|------|-------------------------------|--------------------------------|
| Isobutyl Methacrylate. | 97-86-9 | >99 | Not established. | Not established. |
| Standard grade contains p-Methoxyphenol 4-1000(pp) | 150-76-5 | >99 | Not established. | Not established. |
| Ethyl Alcohol | 64-17-5 | <1 | 1 | 1 |
| N,N-Dimethyl-P-Toluidine | 99-97-8 | <0.5 | Not established. | Not established. |
| Methyl Isobutyl Ketone | 108-10-1 | <0.5 | 50 | 50 |
| Kerosene | 8008-20-6 | <0.5 | Not established. | Not established. |

NOTE: Ingredients are listed on the TSCA Inventory of Chemical Substances. Those not identified are non-hazardous.

SECTION III • PHYSICAL / CHEMICAL CHARACTERISTICS

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| Boiling point in °C | 78°C (172°F) @760 mm Hg | Vapor pressure (mm Hg) | 2.4-4mm / Hg 20°C (68°F) |
| Melting point in °C | Not applicable. | Vapor density (Air = 1) | 4.9 |
| Density (Water = 1) | 0.896. | Evaporation rate (Butyl acetate = 1) | 0.50 |
| Solubility in water | <0.05% | | |
| Appearance and odor | Yellow liquid, strong odor. | | |

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SECTION IV • FIRE / EXPLOSION HAZARD

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|---|--|-----------------|------------|-----------------|
| Flash point | 30 °C (86°F) | | | |
| Flammable limits | LEL | Not established | UEL | Not established |
| Extinguishing medium | Dry chemical, CO ₂ , Foam, Water Fog | | | |
| Special fire fighting procedures | Full protective equipment, including self-contained breathing apparatus, is recommended. Water from fog nozzles may be used to prevent pressure build-up. Fight fires from a safe distance or protected areas. | | | |
| Unusual fire and explosion hazards | Fine mist or sprays may be flammable at temperatures below the flash point. Sealed containers exposed to elevated temperatures may rupture explosively due to polymerization. Vapors are heavier than air and may travel to ignition source. | | | |

SECTION V • REACTIVITY

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| Stability | Stable. |
| Conditions to avoid | Heat, ignition sources and contamination. |
| Incompatibility | Reducing and oxidizing agents. Material has strong solvent properties and can soften paint or rubber. |
| Hazardous decomposition products | Carbon monoxide, carbon dioxide and smoke. |
| Hazardous Polymerization | Polymerization can occur. Avoid excessive heat, storage in absence of inhibitor, inadvertent addition of catalyst. See E-53033- inhibitors and storage stability. |

SECTION VI • TOXICOLOGICAL PROPERTIES OF PRODUCT

A - SUGGESTED FIRST AID

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| Eyes | Flush with plenty of water for at least 15 minutes; call a physician. |
| Skin | Remove contaminated clothing and wash immediately and in depth areas affected with SOAP and water. Irritation if exists, consult a medical expertise. |
| Inhalation | Remove to fresh air. For breathing difficulty, administer oxygen. Breathing failure, give artificial respiration. If breathing difficulty persists, consult a physician. |
| Ingestion | <u>DO NOT INDUCE VOMITING.</u> Immediately give two glasses of |

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water, or activated charcoal slurry. Never give anything by mouth to an unconscious person.

B – TOXICOLOGICAL INFORMATION

PRIMARY ENTRY ROUTES: Inhalation, ingestion, skin and eye contact.

• SHORT TERM EXPOSURE

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| Eyes | Vapor may cause irritation of the eyes, liquid may cause moderate irritation. |
| Skin | Liquid may cause moderate irritation. Repeated or prolonged contact may cause dermatitis. |
| Inhalation | May cause eye, nose, and respiratory irritation. May cause nervous system effects characterized by the following progressive steps: headaches, dizziness, nausea, staggering gait, confusion, unconsciousness. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage. High airborne levels have shown non-specific effects such as irritation and moderate blood changes in laboratory animals, reproductive, embryotoxic and development effects. |

• LONG TERM EXPOSURE

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| Carcinogenicity | Not established. |
| Teratogenicity, Mutagenicity and other reproductive effects | Not established. |
| Skin Sensitization | Prolonged contact may cause allergies, swelling and skin irritation. |
| Respiratory tract sensitization | May be irritating to the respiratory tract. |
| Synergistic materials | None. |

SECTION VII • PRECAUTIONARY INFORMATION PERSONAL PROTECTIVE MEASURES

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| Eyes, face and hands | Goggles are preferred to prevent eye irritation. If safety glasses are substituted, include splash guard or side shields. Neoprene gloves, coveralls and boots are recommended. Do not use protective creams for protection. May be used for ease of clean-up. |
| Respiratory protection | Do not breathe vapors or mists. When levels exceed 100 ppm, wear self-contained breathing apparatus. Follow the respirator manufacturer's directions for respirator use. |
| Ventilation | Provide sufficient ventilation in volume and pattern to keep contaminants below applicable OSHA requirements and other suggested exposure limits. |
| Hearing | As needed in accordance with OSHA 1910-215 |
| HMIS Ratings | Health : 2 Flammability : 2 Reactivity : 2 |



SECTION VIII • SAFETY PRECAUTIONS IN CASE OF LEAKS OR SPILLS

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| Spill or leak procedure | Evacuate area. Ventilate area. Remove source of ignition. Prevent skin contact and breathing of vapor. Confine and remove with inert absorbent. Do not allow material to contaminate ground water systems. Incinerate in a facility which complies with Federal, State/Provincial, and local requirements. Do not incinerate in closed containers. |
| Waste disposal | Disposal of any spill should be in accordance with local, state, or national legislation |

SECTION IX • STORAGE AND HANDLING

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| Storage | Keep away from heat, sparks, flame and direct sunlight. Close container after each use. Observe label precaution. Permit air space to exist inside storage containers. Material stored more than three months should have inhibitor level checked and maintained at original level. |
| Handling | Avoid heat, ignition sources and contamination. Close container after each use. Ground containers when pouring. Do not breathe vapors or mists. Observe label precautions. Wash thoroughly after handling and before eating or smoking. |
| Shipping classification DOT hazard class | <ul style="list-style-type: none"> • Dot Shipping Name: Flammable Liquid N.O.S. • TDG/UN Shipping Names: Flammable Liquid N.O.S (Isobutyl Methacrylate, stabilized, Ethyl Alcohol) • UN Number: UN 1993 • Hazard Class: 3 • Packing Group: III • TDG Exemption: May be shipped as a limited quantity. • Label: Flammable liquid. • ATA Class: 3 • IMDG Class: 3 |
| HMIS Coding | Health: 2 Flammability: 2 Reactivity: 2 |



SECTION X • ECOLOGICAL INFORMATION

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| Environmental Fate and Distribution | Not available. |
| Persistence and Degradation | Not available. |
| Toxicity | Not available. |
| Effect of effluent treatment | Not available. |

SECTION XI • REGULATORY INFORMATION

• EC REGULATIONS:

TSCA STATUS: On Toxic Substance Control Inventory.
 CERCLA REPORTABLE QUANTITY: No.
 SARA TITLE III

- Section 302: None.
- Section 311/312: Acute, fire chronic.
- Section 313: Methacrylate Isobutyl Monomer

RCRA STATUS: Methacrylate Isobutyl Monomer.

• CANADIAN REGULATIONS:

WHMIS Classification: B2, D2A, D2B.

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TERMINOLOGY

ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstract Service

CFR: Code of Federal Regulations (Transportation in U.S.A.)

DOT: Department of Transportation (USA)

DSL: Domestic Substance List

IARC: International Agency for Research and Cancer

LC: Lethal Concentration

LD: Lethal Dosage

MSHA: Mine Safety and Health Administration (USA)

NIOSH: National Institute for Occupational Safety and Health (USA)

NTP: National Toxicology Program (U.S.A.)

OSHA: Occupational Safety and Health Administration (USA)

PEL: Permissible exposure limit.

STEL: Short term exposure limit.

TDG: Transportation of Dangerous Goods

TLV: Threshold limits value.

TSCA: Toxic Substances Control Act

TWA: Time-weighted average

USEPA: United States Environmental Protection Agency

WHMIS: Workplace Hazardous Materials Information System