



MATERIAL SAFETY DATA SHEET

Syrgis Performance
Initiators, Inc.
Helena, AR

NOROX[®] P-20

SECTION 1 - IDENTIFICATION OF THE PRODUCT AND THE COMPANY

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|------------------------|--|---------------------------------|--|
| PRODUCT NAME | NOROX[®] P-20 | TELEPHONE | 870-572-2935 |
| MANUFACTURER | Syrgis Performance Initiators, Inc. | CHEMTREC (24hr) (USA) | 800-424-9300 |
| ADDRESS | 334 Phillips 311 Rd., Helena, AR 72342 | (Maritime/International) | 703-527-3887 |
| CHEMICAL NAME | Tertiary-Butyl Peroxybenzoate (TBPB) | CAS NO. | See section 2. |
| CHEMICAL FAMILY | Organic Peroxide (Peroxyester) | CHEMICAL FORMULA | C ₆ H ₅ CO ₃ C(CH ₃) ₃ |

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

| <u>COMPONENTS</u> | <u>CAS NO.</u> | <u>%</u> |
|---------------------------|----------------|----------|
| Tert-Butyl Peroxybenzoate | 614-45-9 | 77 - 82 |
| 2,4-Pentanedione | 123-54-6 | 18 - 23 |

SECTION 3 - HAZARD IDENTIFICATION OF THE PREPARATION

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| PHYSICAL HAZARDS | Organic Peroxide. Decomposition. |
| HEALTH HAZARDS | Severe Irritant. |
| EXPOSURE LIMITS | None established. |
| ROUTES OF EXPOSURE | |
| Skin Contact | Severe skin irritant causes, redness, blistering, and edema. |
| Eye Contact | Eye contact causes severe corrosion and may cause blindness. |
| Ingestion | Human systemic effects by ingestion: changes in structure or function of esophagus, nausea, or vomiting, and other gastrointestinal effects. |
| Inhalation | Moderately toxic by inhalation. |
| EFFECTS OF OVER-EXPOSURE | Prolonged inhalation of vapors may cause mucous membrane irritation and vertigo. TPBP has been found to be tumorigenic in mice. There are no known medical conditions, which are recognized as being aggravated by exposure. |

SECTION 4 - FIRST-AID MEASURES

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| SKIN | Immediately remove any contaminated clothing. Wash contaminated area thoroughly with soap and copious amounts of water for at least 15 minutes. If irritation or adverse symptoms develop, seek medical attention. |
| EYES | Remove any contact lenses at once. Flush eyes with water for at least 15 minutes. Ensure adequate flushing by separating the eyelids with fingers. If irritation or adverse symptoms develop, seek medical attention. |
| INGESTION | Do Not induce vomiting. Drink plenty of water. Immediately call a physician. For aid to physician, suggest local Poison Control Center. |
| INHALATION | Remove to fresh air, if coughing, breathing becomes labored, irritation develops or other symptoms develop, seek medical attention at once, even if symptoms develop several hours after the exposure. |

SECTION 5 - FIRE-FIGHTING MEASURES

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| FLASH POINT | >140°F (60°C), Seta Closed Cup |
| FLAMMABLE LIMITS | Not established. |
| AUTOIGNITION POINT | Not established. |
| EXTINGUISHING MEDIA | Water from a safe distance - preferably with a fog nozzle. In case of very small fires, other means such as carbon dioxide, foam or dry chemical extinguishers may be effective. Dry chemical combined with TBPB, may re-ignite. Light water additives may be particularly effective at extinguishing TBPB fires. |
| SPECIAL FIRE FIGHTING PROCEDURES | Fireman should be equipped with protective clothing and SCBA's. In case of fire near storage area, cool the containers with water spray. If dry chemical is used to extinguish a TBPB fire, the extinguished area must be thoroughly wetted down with water to prevent re-ignition. |
| UNUSUAL FIRE AND EXPLOSION HAZARDS | The heat of decomposition of the peroxides adds to the heat of the fire. Dry chemical fire extinguishing agent may catalyze the decomposition. |

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SECTION 6 - ACCIDENTAL RELEASE MEASURES

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| STEPS TO BE TAKEN IN EVENT OF SPILL OR RELEASE | Dike spill to prevent runoff from entering drains, sewers, streams, etc. Wet spilled material with water and absorb with an inert absorbent material such as perlite, vermiculite, or sand. Sweep up using non-sparking tools and place in a clean polyethylene drum or a polyethylene pail. DO NOT place into a steel container, lined or unlined, as a decomposition may occur. Treat any contaminated cardboard packaging as hazardous waste. Wet container contents with additional water prior to sealing. |
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SECTION 7 - HANDLING AND STORAGE

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| HANDLING | Rotate stock using the oldest material first. Avoid contact with skin, eyes and clothing. Use PPE as specified in Section 8. Keep containers closed to prevent contamination. Keep away from sources of heat, sparks or flame. Do not add to hot solvents or monomers as a violent decomposition and/or reaction may result. <u>DO NOT USE NEAR FOOD OR DRINK.</u> Wash thoroughly after handling. |
| STORAGE | Store TBPB in its original container at or below 80°F (27°C) to ensure product safety. Prolonged storage at elevated temperatures will result in product degradation. Cooler storage is recommended for longer shelf life. Store out of direct sunlight in a well ventilated area away from combustible and incompatible materials. <u>DO NOT STORE WITH FOOD OR DRINK.</u> Refer to NFPA 432 Code for the Storage of Organic Peroxide Formulations from the National Fire Protection Association for additional storage information. |
| OTHER PRECAUTIONS | Unmixed, uncontaminated material, remaining at the end of the day, shall be returned to a proper organic peroxide storage area. Under no circumstances should material be returned to the original container. |

SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION

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| VENTILATION | Mechanical, general. |
| RESPIRATORY PROTECTION | If airborne concentrations are expected to exceed acceptable levels wear a NIOSH approved air-purifying respirator with an organic vapor cartridge or canister. When using respirators refer to OSHA's 29CFR 1910.134. |
| EYE PROTECTION | Safety goggles recommended. Permanent eyewash is highly recommended. |
| HAND PROTECTION | Protective gloves recommended, solvent resistant, such as butyl rubber, nitrile or neoprene. |
| OTHER | A safety shower and eyewash is recommended when the risk of a significant exposure exists. |

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

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| APPEARANCE AND ODOR: | Colorless to slightly yellow with a mild aromatic odor. | SPECIFIC GRAVITY: | 1.0 |
| BOILING POINT: | Not established. | FLASH POINT: | >140°F (60°C), Seta CC |
| VAPOR PRESSURE: | Not established. | FLAMMABLE LIMITS: | Not established. |
| VAPOR DENSITY: | Not established. | SADT: | >60°C (140°F) |
| EVAPORATION RATE: | Not established. | pH: | Not applicable. |
| % VOLATILE BY VOLUME: | Not established. | | |
| SOLUBILITY IN WATER: | Slightly soluble in water. | | |

SECTION 10 - STABILITY AND REACTIVITY

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| STABILITY | Stable when kept in original, closed container, out of direct sunlight at temperatures below 80°F (27°C). |
| CONDITIONS TO AVOID | Avoid contamination. Do not store in direct sunlight. Temperatures above SADT. |
| MATERIALS TO AVOID | Dimethylaniline, cobalt naphthenate and other promoters, accelerators, reducing agents, or any hot material. |
| HAZARDOUS DECOMPOSITION PRODUCTS | Carbon monoxide, carbon dioxide. Some decomposition products may be flammable. |
| HAZARDOUS POLYMERIZATION | Will not occur. |

NOROX[®] P-20**SECTION 11 - TOXICOLOGICAL INFORMATION****Tert-Butyl Peroxybenzoate****Hazard Data:****Inhalation:** Rat--TC_{Lo}: 6 mg/m³/4H; Mouse--LC: >57 mg/m³/4H.**Oral:** Rat--LD₅₀: 1012 mg/kg; Mouse--LD₅₀: 914 mg/kg.**2,4-Pentanedione****Hazard Data:****Inhalation:** Rat: 694 ppm/6h/5D; Rat--TC_{Lo}: 398 ppm/6H; Rat--LC_{Lo}: 1000 ppm/4H.**Intraperitoneal:** Rat--LD_{Lo}: 400 mg/kg; Mouse--LD₅₀: 750 mg/kg.**Oral:** Rat--LD₅₀: 55 mg/kg; Mouse--LD₅₀: 951 mg/kg.**Skin:** Rabbit: 10 mg/24H open; Rabbit--LD₅₀: 810 µL/kg.**SECTION 12 - ECOLOGICAL INFORMATION**

No data is available on the preparation itself. The product should be prevented from entering drains, sewers, streams, etc.

SECTION 13 - DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved facility. Processing, use, or contamination of this product may change the waste management options.

Immediately dispose of waste material at a RCRA approved hazardous waste management facility in accordance with federal, state and local regulations.

SECTION 14 - TRANSPORT INFORMATION

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| DOT Shipping Name: | ORGANIC PEROXIDE TYPE C, LIQUID (TERT-BUTYL PEROXYBENZOATE, ≤82%) |
| DOT Hazard Class: | 5.2 |
| UN/NA ID No.: | UN3103 |
| DOT Packing Group: | PG II |
| Labels: | 5.2 (Organic Peroxide) |
| 2004 ERG GUIDE NO.: | 146 |

SECTION 15 - REGULATORY INFORMATION

The following chemicals are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

| <u>Chemical Name</u> | <u>CAS Number</u> | <u>Percent</u> |
|----------------------|-------------------|----------------|
| None | N/A | N/A |

Australian Inventory of Chemical Substances (AICS)

The ingredients in this product are listed in the Australian AICS Inventory.

Canadian Domestic Substances List (DSL)

The ingredients in this product are listed in the Canadian DSL Inventory.

Chinese Inventory of Existing Chemical Substances Manufactured or Imported in China (IECSC)

The ingredients in this product are listed in the Chinese IECSC Inventory.

European Inventory of Existing Commercial Chemical Substances (EINECS)

The ingredients in this product are listed in the European EINECS Inventory.

Japanese Existing and New Chemical Substances (ENCS)

The ingredients in this product are listed in the Japanese ENCS Inventory.

Korean Existing Chemicals List (ECL)

The ingredients in this product are listed in the Korean ECL Inventory.

Philippines Inventory of Chemicals and Chemical Substances (PICCS)

The ingredients in this product are listed in the Philippines PICCS Inventory.

US Toxic Substances Control Act (TSCA)

The ingredients in this product are listed in the US TSCA Inventory.

NOROX[®] P-20**Status of Carcinogenicity**

Not recognized as a carcinogen by the IARC, NTP or OSHA.

SECTION 16 - OTHER INFORMATION**VOC Information**

Using ASTM Test Method D-2369-87, but at 40°C (since TBPB decomposes rapidly above 100°C and is not a VOC), Norox[®] P-20 contains 23.3.0% VOC, by weight, or 240 grams per liter. For more information call Syrgis Performance Initiators, Inc.

NFPA 432 Organic Peroxide Classification

Class II

NFPA 704 Rating

Health

1

Flammability

3

Reactivity

3

HMIS Rating

Health

1

Flammability

2

Reactivity

3

MSDS Reference: P-20 MSDS 0709

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