



MATERIAL SAFETY DATA SHEET

NOROX[®] AZOX FRED

Syrgis Performance
Initiators, Inc.
Helena, AR

SECTION 1 - IDENTIFICATION OF THE PRODUCT AND THE COMPANY

PRODUCT NAME	NOROX [®] Azox FRED	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	2,4-Pentanedione Peroxide	CAS NO.	See section 2.
CHEMICAL FAMILY	Organic Peroxide	CHEMICAL FORMULA	Mainly C ₅ H ₁₀ O ₄ .
SYNONYM	Acetyl Acetone Peroxide (AAP)		

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>COMPONENTS</u>	<u>CAS NO.</u>	<u>%</u>
2,4-Pentanedione Peroxide	37187-22-7	32-34
Phlegmatizers	Proprietary	61-63
2,4-Pentanedione	123-54-6	<5

SECTION 3 - HAZARD IDENTIFICATION OF THE PREPARATION

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. There are no known medical conditions, which are recognized as being aggravated by exposure.

SECTION 4 - FIRST-AID MEASURES

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

FLASH POINT	>200°F (93°C), C.O.C.
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 AAP may reignite. Light water additives may be particularly effective at extinguishing AAP fires.
SPECIAL FIRE FIGHTING PROCEDURES	Firemen 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 an AAP fire, the extinguished area must be thoroughly wetted down with water to prevent reignition.
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

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

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. When using spray equipment, never spray raw AAP onto curing or into raw resin or flues. Keep in original container. DO NOT USE NEAR FOOD OR DRINK. Wash thoroughly after handling.
STORAGE	The stability of AAP is directly related to the shipping and storage temperature history. Cool storage at 80°F (27°C) or below is recommended for longer shelf life and stability. Prolonged storage at elevated temperatures of 100°F (38°C) and higher will cause product degradation, gassing and potential container rupture which can result in a fire and/or explosion. Store out of direct sunlight in a well ventilated area away from combustible and incompatible materials. DO NOT STORE WITH FOOD OR DRINK. 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

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

APPEARANCE AND ODOR:	Red liquid with a moderate odor.	
BOILING POINT:	Not established.	SPECIFIC GRAVITY: 1.1 - 1.2
VAPOR PRESSURE:	Not established.	FLASH POINT: >200°F (93°C), C.O.C.
VAPOR DENSITY:	>1	FLAMMABLE LIMITS: Not established.
EVAPORATION RATE:	Not established.	SADT: >50°C (122°F)
% VOLATILE BY VOLUME:	Not established.	pH: Not applicable.
SOLUBILITY IN WATER:	Soluble in water.	

SECTION 10 - STABILITY AND REACTIVITY

STABILITY	Stable when kept in original, closed container, out of direct sunlight at temperatures below 80°F (27°C).
CONDITIONS TO AVOID	Contamination. Prolonged storage above 100°F (38°C). Storage above SADT. Storage near flammable or combustible materials.
MATERIALS TO AVOID	Dimethylaniline, cobalt naphthenate and other promoters, accelerators, reducing agents, or any hot material.
HAZARDOUS DECOMPOSITION PRODUCTS	Acrid smoke and irritating fumes. Carbon monoxide, carbon dioxide and some unknowns.

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HAZARDOUS POLYMERIZATION Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION**2,4-Pentanedione Peroxide**

No hazard data available for this chemical.

Phlegmatizers**Hazard Data:**Oral: Rat--LD₅₀: 3300 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 uL/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

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**DOMESTIC**

DOT Competent Authority Approval OP-9210054

NON REGULATED BY DOT

NO DOT LABEL REQUIRED

EXPORT**DOT Shipping Name:** ORGANIC PEROXIDE TYPE D, LIQUID
(ACETYL ACETONE PEROXIDE, ≤42%)**DOT Hazard Class:** 5.2**UN/NA ID No.:** UN3105**DOT Packing Group:** PG II**Labels:** 5.2 (Organic Peroxide)**2004 ERG GUIDE NO.:** 145**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.

European Inventory of Existing Commercial Chemical Substances (EINECS)

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

US Toxic Substances Control Act (TSCA)

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

Status of Carcinogenicity

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

NOROX[®] AZOX FRED**SECTION 16 - OTHER INFORMATION****VOC Information**

Using ASTM Test Method D-2369-87, but at 40°C (since AAP decomposes rapidly above 100°C and is not a VOC), Norox[®] Azox contains 19.4% VOC, by weight, or 223 grams per liter. For more information call Syrgis Performance Initiators, Inc.

NFPA 704 Rating

<u>Health</u>	<u>Flammability</u>	<u>Reactivity</u>
2	1	1

HMIS Rating

<u>Health</u>	<u>Flammability</u>	<u>Reactivity</u>
2	1	1

MSDS Reference: Azox FRED MSDS 0709.1

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