



# MATERIAL SAFETY DATA SHEET

Syrgis Performance  
Initiators, Inc.  
Helena, AR

## NOROX<sup>®</sup> 425

### SECTION 1 - IDENTIFICATION OF THE PRODUCT AND THE COMPANY

PRODUCT NAME	NOROX <sup>®</sup> 425	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	tert-Butylperoxy-3,5,5-trimethylhexanoate	CAS NO.	13122-18-4
CHEMICAL FAMILY	Organic peroxide - Peroxyester	CHEMICAL FORMULA	C <sub>13</sub> H <sub>26</sub> O <sub>3</sub>

### SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS	CAS NO.	%
tert-Butylperoxy-3,5,5-trimethylhexanoate	13122-18-4	99

### SECTION 3 - HAZARD IDENTIFICATION OF THE PREPARATION

PHYSICAL HAZARDS	Organic Peroxide. Decomposition.
HEALTH HAZARDS	Irritant.
EXPOSURE LIMITS	Both ACGIH and OSHA PEL have not been established for this chemical.
ROUTES OF EXPOSURE	
Skin Contact	Irritating to the skin. May cause sensitization by skin contact..
Eye Contact	May cause slight eye irritation, including redness and swelling.
Ingestion	May be toxic by ingestion.
Inhalation	No known applicable information.
EFFECTS OF OVER-EXPOSURE	No known applicable information.

### 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	Contact a physician, hospital or Poison Control Center at once. <b>DO NOT INDUCE VOMITING.</b> If conscious and not convulsing, give copious amounts of water.
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	~ 201°F (94°C), SETAFLASH
FLAMMABLE LIMITS	No data available.
AUTOIGNITION POINT	No data available.
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.
SPECIAL FIRE FIGHTING PROCEDURES	Firemen should be equipped with protective clothing and SCBA's. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. In case of fire near storage area, cool the containers with water spray.
UNUSUAL FIRE AND EXPLOSION HAZARDS	The heat of decomposition of the peroxides adds to the heat of the fire. Chemicals may explode when exposed to heat.
HAZARDOUS COMBUSTION PRODUCTS	Irritating and highly toxic gases may be generated along with carbon dioxide and carbon monoxide.

**NOROX<sup>®</sup> 425****SECTION 6 - ACCIDENTAL RELEASE MEASURES**

<b>STEPS TO BE TAKEN IN EVENT OF SPILL OR RELEASE</b>	Evacuate area of all unnecessary personnel. Remove all sources of ignition. Refer to protective measures listed in sections 7 and 8. Spilled material should be swept up with an inert, moist diluent such as perlite, vermiculite, or sand. Keep spilled material from entering drains, sewers, streams, etc. Carefully collect the material and transfer into a clean polyethylene lined or a polyethylene drum disposal container. Moisten container with water prior to sealing. Label container and store in a secure area for proper disposal.
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**SECTION 7 - HANDLING AND STORAGE**

<b>HANDLING</b>	Rotate stock using the oldest material first. Avoid contact with skin, eyes and clothing. Avoid breathing vapors and use with adequate ventilation. 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. Keep in original container. <u>DO NOT USE NEAR FOOD OR DRINK</u> . Wash thoroughly after handling.
<b>STORAGE</b>	Store in original containers and keep sealed. Cool storage at 68°F (20°C) or below is recommended for longer shelf life and stability. Prolonged storage at elevated temperatures of 80°F (27°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. <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.
<b>OTHER PRECAUTIONS</b>	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**

<b>VENTILATION</b>	Use adequate ventilation.
<b>RESPIRATORY PROTECTION</b>	Not generally required unless necessary to prevent respiratory irritation. If necessary use NIOSH approved cartridge respirator with organic vapor cartridges. In case of spill or leak of unknown concentration, use NIOSH approved supplied air respirator.
<b>EYE PROTECTION</b>	Safety goggles recommended, goggles with a face shield are preferred.
<b>HAND PROTECTION</b>	Protective gloves recommended, solvent resistant.
<b>OTHER</b>	A safety shower and eyewash is highly recommended when the risk of a significant exposure exists.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<b>APPEARANCE AND ODOR:</b>	Colorless liquid with a mild ester-like odor.	<b>SPECIFIC GRAVITY:</b>	.9
<b>BOILING POINT:</b>	Decomposes.	<b>FLASH POINT:</b>	~ 201°F (94°C), SETAFLASH
<b>VAPOR PRESSURE:</b>	No data available.	<b>FLAMMABLE LIMITS:</b>	No data available.
<b>VAPOR DENSITY:</b>	No data available.	<b>SADT:</b>	60°C (140°F)
<b>EVAPORATION RATE:</b>	No data available.	<b>pH:</b>	No data available.
<b>% VOLATILE BY VOLUME:</b>	No data available.		
<b>SOLUBILITY IN WATER:</b>	Insoluble.		

**SECTION 10 - STABILITY AND REACTIVITY**

<b>STABILITY</b>	Unstable.
<b>CONDITIONS TO AVOID</b>	Storage in direct sunlight, heat, flames, sparks. Storage above SADT. Contamination.
<b>MATERIALS TO AVOID</b>	Promoters, accelerators, strong acids, strong bases, heavy metal salts, oxidizing and reducing agents, or any hot material. Contaminants (e.g. rust, dust, ash). Combustible or flammable materials.
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	Carbon dioxide and carbon monoxide. Flammable/explosive, irritating, corrosive, harmful toxic gases and vapors..
<b>HAZARDOUS POLYMERIZATION</b>	Will not occur.

**NOROX<sup>®</sup> 425****SECTION 11 - TOXICOLOGICAL INFORMATION****tert-Butylperoxy-3,5,5-trimethylhexanoate****Hazard Data:****Toxicity****Inhalation:** Rat--LC<sub>50</sub>: >.8mg/l (4hr, max. concentration)**Dermal:** Rabbit--LD<sub>0</sub>: >2000 mg/kg.**Oral:** Rat-LD<sub>50</sub>: >5000 mg/kg**SECTION 12 - ECOLOGICAL INFORMATION**

The product should be prevented from entering drains, sewers, streams, etc. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

**Fish Toxicity:** LD<sub>50</sub>: 7 mg/l/96hr.**Bacteria Toxicity:** EC<sub>50</sub>: >20 mg/l/3hr.**Aquatic Invertebrates Toxicity:** Daphnia--EC<sub>50</sub>: >100 mg/l/48hr.

**Biodegradability:** SCAS-test: Readily biodegradable  
Modified Strum-test: Not easy biodegradable.

**Mutagenicity:** AMES - Test: Not mutagenic.**SECTION 13 - DISPOSAL CONSIDERATIONS**

Prevent material from entering drains, sewers, streams, etc.

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

Controlled burning is the preferred disposal method. This material may be burned in a chemical incinerator equipped with an afterburner and a scrubber.

**SECTION 14 - TRANSPORT INFORMATION**

<b>DOT Shipping Name:</b>	ORGANIC PEROXIDE TYPE D, LIQUID (tert-Butyl peroxy-3,5,5-trimethylhexanoate, ≤100%)
<b>DOT Hazard Class:</b>	5.2
<b>UN/NA ID No.:</b>	UN3105
<b>DOT Packing Group:</b>	PG II
<b>Labels:</b>	5.2 (Organic Peroxide)
<b>2004 ERG GUIDE NO.:</b>	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.

**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.

**NOROX<sup>®</sup> 425****Korean Existing Chemicals List (ECL)**

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

**SECTION 16 - OTHER INFORMATION****VOC Information**

No VOC data is currently available.

**NFPA 432 Organic Peroxide Classification**

Class III

**NFPA 704 Rating**

<u>Health</u>	<u>Flammability</u>	<u>Reactivity</u>
2	3	3

**HMIS Rating**

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

**MSDS Reference:** Norox 425 MSDS 0709

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