MATERIAL SAFETY DATA SHEET

NOROX® TBIC

Syrgis Performance Initiators, Inc.

Helena, AR

SECTION 1 - IDENTIFICATION OF THE PRODUCT AND THE COMPANY

PRODUCT NAME	**NOROX® TBIC**	**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 Isopropylcarbonate	**CAS NO.**	See Section 2
CHEMICAL FAMILY	Organic Peroxide (Peroxyester)	**CHEMICAL FORMULA**	Mixture

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS	**CAS NO.**	**%**
tert-Butylperoxy Isopropylcarbonate	2372-21-6	75
Mixture of C_{12}-Isoparaffins	Proprietary	25

SECTION 3 - HAZARD IDENTIFICATION OF THE PREPARATION

PHYSICAL HAZARDS	Organic Peroxide. Decomposition. Potential fire/explosion hazard
HEALTH HAZARDS	Skin and eye irritant
EXPOSURE LIMITS	None established.
ROUTES OF EXPOSURE	
Skin Contact	Skin irritant may cause, redness, blistering, and edema. May cause sensitization by skin contact.
Eye Contact	May cause mild eye irritation.
Ingestion	Harmful by ingestion may cause lung damage if aspirated.
Inhalation	Moderately toxic by inhalation.
EFFECTS OF OVER-EXPOSURE	Unknown.

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	~113ºF (45°C) SETAFLASH
FLAMMABLE LIMITS	Unknown
AUTOIGNITION POINT	Unknown
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	Fireman should be equipped with protective clothing and SCBA's. 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.

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. Absorb spilled material 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 water prior to sealing.**

SECTION 7 - HANDLING AND STORAGE

HANDLING	Rotate stock using the oldest material first. Avoid contact with skin, eyes and clothing. 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. DO NOT USE NEAR FOOD OR DRINK. Wash thoroughly after handling.
STORAGE	Store TBIC 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. 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/MSHA 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 exits.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR:	Colorless liquid with a mild odor.		
BOILING POINT:	Decomposed	**SPECIFIC GRAVITY:**	.9
VAPOR PRESSURE:	Unknown	**FLASH POINT:**	~ 113ºF (45°C) SETAFLASH
VAPOR DENSITY:	Unknown	**FLAMMABLE LIMITS:**	Unknown
EVAPORATION RATE:	Unknown	**SADT:**	~ 60°C (140ºF)
% VOLATILE BY VOLUME:	Unknown	**pH:**	Not applicable
SOLUBILITY IN WATER:	Insoluble 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	Avoid contamination. Do not store in direct sunlight. Temperatures above SADT.
MATERIALS TO AVOID	Strong acids and bases, heavy metals (salts), promoters, accelerators, reducing agents, combustible materials or any hot material.
HAZARDOUS DECOMPOSITION PRODUCTS	Carbon monoxide, carbon dioxide. Decomposition products may be flammable/explosive, irritating, corrosive and harmful/toxic.
HAZARDOUS POLYMERIZATION	Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

tert-Butylperoxy Isopropylcarbonate
Hazard Data:
Oral: Rat--LD_{50}: >2000 mg/kg

Mixture of C12-Isoparaffins
Hazard Data:
Inhalation: Rat-- LC_{50}: 21.3 mg/kg/1hr
Oral: Rat--LD_{50}: >2000 mg/kg

SECTION 12 - ECOLOGICAL INFORMATION

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

tert-Butylperoxy Isopropylcarbonate
Aquatic Toxicity: Daphnia magna--EC_{50}: .314 mg/l/48hr
Degradation: Closed bottle test - not readily biodegradable

Mixture of C12-Isoparaffins
Bacterial Toxicity: Pseudomans fluoresens—LC_0: >100mg/l
Fish Toxicity: Leuciscus idus--LC_0: >100mg/l/48hr
Brachydanio rerio--LC_0: 1000mg/l/96hr
Degradation: not readily biodegradable

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

DOT Shipping Name:	ORGANIC PEROXIDE TYPE C, LIQUID (TERT-BUTYLPEROXY ISOPROPYLCARBONATE, ≤77%)
DOT Hazard Class:	5.2
UN/NA ID No.:	UN3103
DOT Packing Group:	PG II
Labels:	5.2 (Organic Peroxide)
2000 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.

Chemical Name	CAS Number	Percent
None		

TSCA Status
The components of this product are listed in the US Toxic Substances Control Act (TSCA) Inventory.

European Inventory of Existing Commercial Chemical Substances (EINECS)
The ingredients in this product are listed in the European EINECS Inventory.

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

NOROX® TBIC

SECTION 16 - OTHER INFORMATION

NFPA 432 Organic Peroxide Classification
Class II

NFPA 704 Rating

Health	Flammability	Reactivity
1	3	3

HMIS Rating

Health	Flammability	Reactivity
2	2	2

MSDS Reference: TBIC MSDS 0709

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