The MSDS format adheres to the standards and regulatory requirements of the United States and may not meet regulatory requirements in other countries.

"Krytox" NDR 1466
05577999 Revised 20-MAY-2011

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

"Krytox" is a registered trademark of DuPont.

Tradenames and Synonyms

Company Identification

MANUFACTURER/DISTRIBUTOR
DuPont
1007 Market Street
Wilmington, DE 19898

PHONE NUMBERS
Product Information : 1-800-441-7515 (outside the U.S. 302-774-1000)
Transport Emergency : CHEMTREC 1-800-424-9300(outside U.S. 703-527-3887)
Medical Emergency : 1-800-441-3637 (outside the U.S. 302-774-1000)

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
PTFE	9002-84-0	18-27
*Sodium Nitrite	7632-00-0	0-3

* Disclosure as a toxic chemical is required under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

HAZARDS IDENTIFICATION

Potential Health Effects

Skin contact may cause reddening of the skin. Sodium Nitrite has been infrequently associates with skin sensitization in humans.

Eye contact may cause eye irritation with discomfort, tearing, or blurring of vision.

Inhalation of fluorine containing compounds released as decomposition products from overheated or burning product

(HAZARDS IDENTIFICATION - Continued)

may cause lung irritation and pulmonary edema which require medical treatment. Inhalation of gases and fumes from overheated or burning product may cause polymer fume fever, which is a temporary flu-like illness characterized by fever, chills, and sometimes cough, and lasting approximately 24 hours. Repeated episodes of polymer fume fever may cause persistant lung effects.

Inhalation or ingestion of Sodium Nitrite may cause low blood pressure with a throbbing headache and fainting, or nonspecific discomfort such as nausea or weakness.

Overexposure to Sodium Nitrite may cause methemoglobinemia (reduced oxygen carrying capacity of the blood) with headache, weakness or cyanosis (bluish discoloration of the skin) possibly progressing to dizziness, incoordination, shortness of breath, increased pulse rate and loss consciousness.

Simultaneous ingestion of nitrites and medications or chemicals containing an amine group may form carcinogenic nitrosamines in the stomach.

Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

FIRST AID MEASURES

First Aid

INHALATION

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

SKIN CONTACT

In case of contact, immediately wash skin with soap and water. Wash contaminated clothing before reuse.

EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

INGESTION

(FIRST AID MEASURES - Continued)

If swallowed, do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

Notes to Physicians

Activated charcoal mixture may be administered. To prepare activated charcoal mixture, suspend 50 grams activated charcoal in 400 mL water and mix thoroughly. Administer 5 mL/kg, or 350 mL for an average adult.

FIRE FIGHTING MEASURES

Flammable Properties

Flash Point	: Does not ignite
Method	: PMCC

Non-combustible.

Extinguishing Media

As appropriate for combustibles in area.

Fire Fighting Instructions

Wear self-contained breathing apparatus. Wear full protective equipment.

Decomposition at flame temperatures may form toxic fluorine compounds. Avoid breathing decomposition products.

ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Spill Clean Up

Remove source of heat and flame. Place in container for disposal.

The CERCLA Reportable Quantity (RQ) for Sodium Nitrite is 100 pounds.

HANDLING AND STORAGE

Handling (Personnel)

Avoid contact with eyes. Avoid contact with skin. Wash thoroughly after handling. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material.

Storage

Keep container tightly closed. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material.

Keep away from heat and flames to avoid decomposition products.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Keep container tightly closed.

Use ventilation when the grease is heated above 550 degF. Keep away from heat and flames.

Personal Protective Equipment

EYE/FACE PROTECTION

Wear safety glasses or coverall chemical splash goggles.

RESPIRATOR

Wear NIOSH approved respiratory protection as appropriate.

PROTECTIVE CLOTHING

Where there is potential for skin contact have available and wear as appropriate, impervious gloves, apron, pants, and jacket.

Exposure Guidelines

Applicable Exposure Limits

PTFE

PEL	(OSHA)	: None Established
TLV	(ACGIH)	: None Established
AEL *	(DuPont)	: 10 mg/m3, 8 Hr. TWA, total dust 5 mg/m3, 8 Hr. TWA, respirable dust

Sodium Nitrite

PEL	(OSHA)	: None Established
TLV	(ACGIH)	: None Established
AEL *	(DuPont)	: 2 mg/m3, 8 & 12 Hr. TWA, respirable dust
WEEL	(AIHA)	: None Established

* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Melting Point	: 320 C (608 F)
Solubility in Water	: Negligible
pH	: Neutral
Odor	: Odorless
Form	: Solid, waxy grease
Color	: White
Specific Gravity	: 1.89-1.93 @ 24 deg C (75 deg F)
Pour Point	: -57 to -37.7 deg C (-70.6 to -35.9 deg F)

STABILITY AND REACTIVITY

Chemical Stability

Stable.

Incompatibility with Other Materials

None reasonably foreseeable.

Decomposition

Heating above 350 degC (662 degF) may form potentially toxic fluorine compounds. Depolymerization may occur in the presence of some metal oxides at temperatures above 288 degC (550 degF). Decomposition occurs at increasing rates as temperature is raised above 355 degC (670 degF).

Polymerization

Polymerization will not occur.

TOXICOLOGICAL INFORMATION

Animal Data

Sodium Nitrite:

Inhalation 4 hour LC50: 1.45 mg/L in rats
Oral LD50: 120 mg/kg in rats

Animal testing indicates that PTFE is not a skin irritant. Repeated exposure to PTFE by ingestion caused no significant toxicological effects. Long-term exposure caused altered white blood cell count. Single exposure to PTFE by inhalation caused irritation of the lungs. Exposure to thermal decomposition products caused pulmonary inflammation. Exposure to thermal decomposition products from higher temperatures caused pulmonary edema and death. No adequate animal data are available to define the carcinogenicity or developmental hazards of PTFE. No adequate reports of genetic testing were found. No animal data are available to define the reproductive toxicity of PTFE.

Sodium Nitrite is untested for skin irritancy, is a mild eye irritant, and is not a skin sensitizer in animals. No local or systemic effects are reported after 30 days' dermal exposure. Two to four weeks inhalation exposure produced only increased activity of lung enzymes. Effect of a single ingestion exposure is reported to be methemoglobinia. Repeated exposure produced nonspecific effects such as weight loss and irritation, methemoglobinia, decreased hemoglobin, and an increase in brain dopamine. Long term ingestion produced methemoglobinia and unspecified pathological changes in liver, spleen, kidney, adrenals, brain, heart and lungs. Tests in animals demonstrate no carcinogenic activity. Tests in animals demonstrate no reproductive or developmental toxicity. Sodium nitrite appears to cross the placenta causing methemoglobinemia in the fetus after administration to the dam. In some tests, but not others, sodium nitrite produces genetic damage in bacterial and mammalian cell cultures as well as tests in animals. It does not produce heritable genetic damage.

ECOLOGICAL INFORMATION

Ecotoxicological Information

Sodium Nitrite:
96 hour LC50, Minnows : >100 mg/L.

DISPOSAL CONSIDERATIONS

Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Do not flush to surface water or sanitary sewer system.

TRANSPORTATION INFORMATION

Shipping Information

Not Regulated as a hazardous material by DOT, IMO, or IATA.

REGULATORY INFORMATION

U.S. Federal Regulations

TSCA Inventory Status : Reported/Included.

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute	: Yes
Chronic	: No
Fire	: No
Reactivity	: No
Pressure	: No

OTHER INFORMATION

NFPA, NPCA-HMIS

NPCA-HMIS Rating

Health	: 1
Flammability	: 0
Reactivity	: 0

Personal Protection rating to be supplied by user depending on use conditions.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsible for MSDS	: MSDS Coordinator
>	: DuPont Chemical Solutions Enterprise
Address	: Wilmington, DE 19898
Telephone	: (800) 441-7515

(Continued)

# Indicates updated section.

This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.

End of MSDS