

NPR 5466

Version 2.0

Revision Date 06/23/2008

Ref. 150000002850

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

| | | |
|---------------------|---|---|
| Product name | : | NPR 5466 |
| Product Grade/Type | : | NPR 5466 |
| MSDS Number | : | 150000002850 |
| Product Use | : | Chemical intermediate |
| Manufacturer | : | DuPont Performance Elastomers L.L.C Bellevue Park Corporate Center, 300 Bellevue Parkway Wilmington, Delaware 19809 |
| Product Information | : | 1-800-441-7515 (outside the U.S. 1-302-774-1000) |
| Medical Emergency | : | 1-800-441-3637 (outside the U.S. 1-302-774-1139) |
| Transport Emergency | : | CHEMTREC: 1-800-424-9300 (outside the U.S. 703-527-3887) |

SECTION 2. HAZARDS IDENTIFICATION

Potential Health Effects

Skin

- 2-chlorobuta-1,3-diene; chloroprene : May irritate skin.
- Xylene : May cause skin irritation. Drying of skin with itching, redness or rash
- Ethylbenzene : Mild skin irritation

Eyes

- 2-chlorobuta-1,3-diene; chloroprene : Causes eye irritation.
- Xylene : May irritate eyes.
- Ethylbenzene : Causes eye irritation.

Inhalation

- 2-chlorobuta-1,3-diene; chloroprene : May cause respiratory tract irritation. Shortness of breath, Fluid retention in lungs (pulmonary oedema), Symptoms may be delayed..
Inhalation may cause central nervous system effects. dizziness, confusion, incoordination, drowsiness, or unconsciousness
Abnormal liver function altered blood chemistry, Liver damage.
- Xylene : May cause respiratory tract irritation. Headache, Nausea, Weakness, Central nervous system depression, dizziness, confusion, incoordination, drowsiness, or unconsciousness, cardiovascular system effects, Abnormal decrease in number of red blood cells (anaemia) which could produce tiredness, rapid heartbeat, dizziness, pale skin, leg cramps, shortness of

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breath, Liver effects, Kidney effects.

Ethylbenzene : May cause respiratory tract irritation. narcosis, Altered respiratory rate.

Ingestion

Xylene : Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Headache, Nausea, Vomiting, Central nervous system depression, dizziness, confusion, incoordination, drowsiness, or unconsciousness, Aspiration hazard if swallowed - can enter lungs and cause damage..

Repeated exposure

2-chlorobuta-1,3-diene; chloroprene : Liver damage altered blood chemistry

Ethylbenzene : Liver effects Kidney effects lung effects thyroid effects

Target Organs

2-chlorobuta-1,3-diene; chloroprene : Liver Blood Respiratory Tract Central nervous system

Xylene : Central nervous system Liver Kidney Cardio-vascular system

**Carcinogenicity
Material**

| | IARC | NTP | OSHA | ACGIH |
|-------------------------------------|------|-----|------|-------|
| 2-chlorobuta-1,3-diene; chloroprene | 2B | X | | |
| Ethylbenzene | 2B | | | A3 |

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS-No. | Concentration |
|-------------------------------------|-----------|---------------|
| 2-chlorobuta-1,3-diene; chloroprene | 126-99-8 | <50 % |
| Xylene | 1330-20-7 | >39% |
| Ethylbenzene | 100-41-4 | <10 % |

SECTION 4. FIRST AID MEASURES

Skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. Wash contaminated clothing before re-use. Discard contaminated shoes.

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- Eye contact : Rinse thoroughly with plenty of water, also under the eyelids. Consult a physician.
- Inhalation : Immediately move to fresh air. Symptoms may be delayed. Call a physician.
- Ingestion : If victim is conscious: Do not induce vomiting. Drink water. Call physician immediately.
- General advice : If symptoms persist, call a physician.
- Notes to physician : Activated charcoal may be beneficial.

SECTION 5. FIRE-FIGHTING MEASURES

- Flammable Properties
Flash point : -19 °C (-2 °F) open cup
- Fire and Explosion Hazard : Vapours may form explosive mixtures with air. Hazardous combustion products Hydrogen chloride Carbon dioxide (CO₂) Under conditions giving incomplete combustion, hazardous gases produced may consist of: Hydrogen chloride gas Carbon oxides Organic acids Aldehydes Alcohols
- Extinguishing Media : Foam, Carbon dioxide (CO₂), Dry chemical
- Firefighting Instructions : Wear self-contained breathing apparatus and protective suit. Evacuate personnel to safe areas. Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6. ACCIDENTAL RELEASE MEASURES

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

- Safeguards (Personnel) : Wear self-contained breathing apparatus and protective suit.
- Spill Cleanup : Remove all sources of ignition. Dam up. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
- Accidental Release Measures : Prevent material from entering sewers, waterways, or low areas. Dispose of promptly.

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SECTION 7. HANDLING AND STORAGE

- Handling (Personnel) : Use only in area provided with appropriate exhaust ventilation. Avoid contact with skin, eyes and clothing. Avoid breathing vapours or mist. Wash hands before breaks and immediately after handling the product. Regular cleaning of equipment, work area and clothing. When using do not eat, drink or smoke.
- Handling (Physical Aspects) : Keep away from heat and sources of ignition. Use non-sparking tools and grounded/bonded equipment and containers when transferring.
- Storage : Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat, sparks and flames.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering controls : Use only in area provided with appropriate exhaust ventilation.
- Personal protective equipment
 - Eye protection : Wear safety glasses. Wear coverall chemical splash goggles and face shield when the possibility exists for eye and face contact due to splashing or spraying of material.
 - Skin protection : Wear as appropriate: To prevent any contact, wear impervious clothing such as gloves, apron, boots, jacket, pants, hood or totally encapsulating chemical suit with breathing air supply.
 - Respiratory protection : Where there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

Exposure Guidelines

Exposure Limit Values

Hydrogen chloride (gas)

| | | | | |
|-----|---------|-------|---------------------|---------|
| PEL | (OSHA) | 5 ppm | 7 mg/m ³ | Ceiling |
| TLV | (ACGIH) | 2 ppm | Ceiling | |

2-chlorobuta-1,3-diene; chloroprene

| | | | | |
|-------|----------|--------|----------------------|---------------------------|
| PEL | (OSHA) | 25 ppm | 90 mg/m ³ | 8 hr. TWA |
| | | | | Skin designation applies. |
| TLV | (ACGIH) | 10 ppm | 8 hr. TWA | |
| | | | | Skin designation applies. |
| AEL * | (DUPONT) | 2 ppm | 8 & 12 hr. TWA | |

Xylene

| | | | | |
|-----|---------|---------|-----------------------|-----------|
| PEL | (OSHA) | 100 ppm | 435 mg/m ³ | 8 hr. TWA |
| TLV | (ACGIH) | 150 ppm | STEL | |
| TLV | (ACGIH) | 100 ppm | TWA | |

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| | | | |
|-------|----------|---------|----------------|
| AEL * | (DUPONT) | 150 ppm | 15 minute TWA |
| AEL * | (DUPONT) | 100 ppm | 8 & 12 hr. TWA |

Ethylbenzene

| | | | | |
|-------|----------|---------|-----------------------|-----------|
| PEL | (OSHA) | 100 ppm | 435 mg/m ³ | 8 hr. TWA |
| TLV | (ACGIH) | 125 ppm | STEL | |
| TLV | (ACGIH) | 100 ppm | TWA | |
| AEL * | (DUPONT) | 25 ppm | 8 & 12 hr. TWA | |

* 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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|------------------|---|
| Form | : liquid |
| Color | : none |
| Odor | : hydrocarbon-like |
| Boiling point | : ca. 59.4 °C (138.9 °F) (for a component of this mixture) |
| % Volatile | : 100 % |
| Density | : 0.913 g/cm ³ |
| Water solubility | : slightly soluble |

SECTION 10. STABILITY AND REACTIVITY

| | |
|---------------------|--|
| Stability | : This material readily polymerizes with the evolution of heat, particularly in the absence of polymerization inhibitors. This material readily dimerizes especially at elevated temperature. The dimerization reaction can not be prevented. However, the rate of dimerization can be reduced by dilution and/or low temperature (0 degree C) storage. "Properties and Handling of chloroprene (CD)" (H71077). Material can spontaneously polymerize by addition of oxidizing agents or peroxides or exposure to air. |
| Conditions to avoid | : Heat, flames and sparks. Elevated temperature |
| Incompatibility | : Peroxides Oxidizing agents Air Polymerization catalyst This material readily absorbs oxygen to form peroxides, which can decompose violently. They can also decompose to free radicals which can initiate polymerization. |
| Polymerization | : Polymerization can occur. |

SECTION 11. TOXICOLOGICAL INFORMATION

| | |
|-------------------------------------|------------------|
| 2-chlorobuta-1,3-diene; chloroprene | |
| Oral LD50 | : 251 mg/kg, rat |

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| | | |
|--------------------------|---|--|
| Inhalation 4 h LC50 | : | 11.8 mg/l, rat Liver damage lung effects Central nervous system effects |
| Skin irritation | : | Species: rabbit irritant |
| Eye irritation | : | Species: rabbit irritant |
| Repeated dose toxicity | : | Inhalation, rat Respiratory tract damage, Liver damage, Abnormal decrease in number of red blood cells (anaemia) |
| Carcinogenicity | : | An increased incidence of tumours was observed in laboratory animals., No increased risk of cancer in humans has been shown in workplace-based studies. |
| Mutagenicity | : | Genetic damage in animals was observed in some laboratory tests but not in others., Genetic damage in cultured bacterial cells was observed in some laboratory tests but not in others., Genetic damage in cultured mammalian cells was observed in some laboratory tests but not in others. |
| Toxicity to reproduction | : | Evidence suggests the substance is not a reproductive toxin in animals. |
| Teratogenicity | : | Evidence suggests the substance is not a developmental toxin in animals. |
| Xylene | | |
| Dermal ALD | : | 4,320 mg/kg, animals (unspecified species) |
| Oral LD50 | : | 4,500 mg/kg, rat |
| Inhalation | : | animals (unspecified species) Respiratory tract irritation Incoordination Prostration Altered respiratory rate changes in blood pressure altered blood chemistry Tremors Lethargy Hyperactivity |
| Inhalation | : | human |

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Central nervous system effects

| | | |
|--------------------------|---|--|
| Skin irritation | : | irritant |
| Eye irritation | : | irritant |
| Repeated dose toxicity | : | Inhalation Central nervous system effects, Liver effects |
| | | Oral Liver effects, Kidney effects, Adverse body weight effects, Central nervous system effects |
| Carcinogenicity | : | Animal testing did not show any carcinogenic effects. |
| Mutagenicity | : | Tests on bacterial or mammalian cell cultures did not show mutagenic effects., Evidence suggests this substance does not cause genetic damage in animals. |
| Toxicity to reproduction | : | Animal testing showed effects on reproduction at levels equal to or above those causing parental toxicity. |
| Teratogenicity | : | Animal testing showed effects on embryo-foetal development at levels equal to or above those causing maternal toxicity. |
| Ethylbenzene | | |
| Dermal LD50 | : | 15,415 mg/kg, rabbit |
| Oral LD50 | : | 3,500 mg/kg, rat Liver damage |
| Inhalation 4 h LC50 | : | 17.4 mg/l, rat narcosis |
| Skin irritation | : | Species: rabbit Moderate skin irritation |
| Eye irritation | : | Species: rabbit Eye irritation |
| Carcinogenicity | : | An increased incidence of tumours was observed in laboratory animals. |
| Mutagenicity | : | Tests on mammalian cell cultures showed mutagenic effects, Animal testing did not show any mutagenic effects., Did not cause genetic damage in cultured bacterial cells. |
| Toxicity to reproduction | : | Animal testing showed effects on reproduction that included, Reduced |

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female fertility

Teratogenicity : Animal testing showed effects on embryo-foetal development at levels equal to or above those causing maternal toxicity.

SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity

2-chlorobuta-1,3-diene; chloroprene

96 h LC50 : Leuciscus idus (Golden orfe) 200 mg/l

24 h EC50 : Daphnia magna (Water flea) 348 mg/l

Xylene

96 h LC50 : Fathead minnow 24 - 42 mg/l

Ethylbenzene

96 h LC50 : Pimephales promelas (fathead minnow) 48.5 mg/l

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal : Dispose of wastes in an approved waste disposal facility. Incinerate only in incinerators capable of scrubbing out acidic combustion products. Comply with applicable Federal, State/Provincial and Local Regulations.

Container Disposal : Refer to the product label for instructions.

SECTION 14. TRANSPORT INFORMATION

| | | |
|--------|----------------------|---|
| DOT | UN-Number | : 1992 |
| | Proper shipping name | : Flammable liquids, toxic, n.o.s. (2-Chloro-1,3-Butadiene, Xylene) |
| | Class | : 3 |
| | Packaging group | : II |
| | Labelling No. | : 3 (6.1) |
| | Reportable Quantity | : 202 lbs (Xylene) |
| | Reportable Quantity | : 10,010 lbs (Ethylbenzene) |
| IATA_C | UN-Number | : 1992 |
| | Proper shipping name | : Flammable liquid, toxic, n.o.s. (2-Chloro-1,3-Butadiene, Xylene) |
| | Class | : 3 |
| | Packaging group | : II |
| IMDG | Labelling No. | : 3 (6.1) |
| | UN-Number | : 1992 |

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Proper shipping name : Flammable liquid, toxic, n.o.s. (2-Chloro-1,3-Butadiene, Xylene)
 Class : 3
 Packaging group : II
 Labelling No. : 3 (6.1)

SECTION 15. REGULATORY INFORMATION

TSCA Status : In compliance with TSCA Inventory requirements for commercial purposes.

SARA 313 Regulated Chemical(s) : 2-chlorobuta-1,3-diene; chloroprene, Xylene , Ethylbenzene

CERCLA Reportable Quantity : 202 lbs
 Based on the percentage composition of this chemical in the product.: Xylene

CERCLA Reportable Quantity : 10,010 lbs
 Based on the percentage composition of this chemical in the product.: Ethylbenzene

California Prop. 65 : WARNING! This product contains a chemical known in the State of California to cause cancer.
 (E)-1,4-Dichloro-2-Butene, Ethylbenzene, 2-chlorobuta-1,3-diene; chloroprene

 WARNING! This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.
 Toluene

PA Right to Know Regulated Chemical(s) : Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): 2-chlorobuta-1,3-diene; chloroprene, Xylene, Ethylbenzene

NJ Right to Know Regulated Chemical(s) : Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): 2-chlorobuta-1,3-diene; chloroprene, Xylene, Ethylbenzene

SECTION 16. OTHER INFORMATION

Restrictions for use : Do not use in medical applications involving permanent implantation in the human body. For other medical applications see DuPont Performance Elastomer's caution bulletin No. H-69237.

Before use read DuPont Performance Elastomer's safety information.® Registered trademark of DuPont Performance Elastomers

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