

**DuPont(TM) SentraMax(TM)**

Version 2.0

Revision Date 05/27/2015

Ref. 13000031842

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 : DuPont(TM) SentraMax(TM)
Tradenam e/Synonym : DuPont(TM) SentraMax(TM) Broad-Spectrum Disinfectant

Product Use : Disinfectant, For professional users only.

Restrictions on use : Do not use product for anything outside of the above specified uses
Manufacturer/Supplier : DuPont
1007 Market Street
Wilmington, DE 19898
United States of America

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. +1-703-527-3887)

SECTION 2. HAZARDS IDENTIFICATION**Product hazard category**

Flammable liquids	Category 3
Skin corrosion	Category 1A
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 2
Specific target organ toxicity - repeated exposure	Category 2

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Label content

Pictogram

:



Signal word

: Danger

Hazardous warnings

: Flammable liquid and vapour.
Causes severe skin burns and eye damage.
Suspected of causing cancer.
May cause damage to organs through prolonged or repeated exposure.
(digestive system, Spleen, Liver)

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Hazardous prevention measures : Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 Keep container tightly closed.
 Ground/bond container and receiving equipment.
 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
 Use only non-sparking tools.
 Take precautionary measures against static discharge.
 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
 Wash skin thoroughly after handling.
 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 Use personal protective equipment as required.
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing.
 Rinse skin with water/ shower.
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 IF exposed or concerned: Get medical advice/ attention.
 Immediately call a POISON CENTER/doctor.
 Wash contaminated clothing before reuse.
 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
 Store in a well-ventilated place. Keep cool.
 Store locked up.
 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity: 22.0624 %

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	5 - 10 %


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Polyethylene oxide mono-C9-11-alkyl ether	68439-46-3	5 - 10 %
Tetrasodium ethylene diamine tetraacetate	64-02-8	1 - 5 %
Ethanol	64-17-5	1 - 5 %
Trisodium Nitrilotriacetate	5064-31-3	0.1 - 1 %

SECTION 4. FIRST AID MEASURES

- General advice : When symptoms persist or in all cases of doubt seek medical advice.
- Inhalation : Move to fresh air. Consult a physician if necessary.
- Skin contact : In case of contact, immediately flush skin with plenty of water. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Consult a physician if necessary.
- Eye contact : Rinse immediately with plenty of water and seek medical advice.
- Ingestion : Call a poison control center or doctor for treatment advice. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Do not give anything by mouth to an unconscious person.
- Most important symptoms/effects, acute and delayed : No applicable data available.
- Protection of first-aiders : If potential for exposure exists refer to Section 8 for specific personal protective equipment.
- Notes to physician : Probable mucosal damage may contraindicate the use of gastric lavage.

SECTION 5. FIREFIGHTING MEASURES

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- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : No applicable data available.
- Specific hazards : No applicable data available.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus (SCBA). Wear suitable protective equipment.
- Further information : Evacuate personnel to safe areas.

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 suitable protective equipment. Wear respiratory protection.
- Environmental precautions : Prevent material from entering sewers, waterways, or low areas.
- Spill Cleanup : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
- Accidental Release Measures : No applicable data available.

SECTION 7. HANDLING AND STORAGE

- Handling (Personnel) : Avoid inhalation, ingestion and contact with skin and eyes. Do not get on clothing. Wash off with plenty of water. Wash clothing after use. Do not breathe vapours or spray mist. When using do not eat, drink or smoke.
- Handling (Physical Aspects) : Keep away from heat and sources of ignition.
- Dust explosion class : No applicable data available.
- Storage : Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs. Keep container closed when not in use.
- Storage period : No applicable data available.

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Storage temperature : No applicable data available.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls : Ensure adequate ventilation.

Personal protective equipment

Respiratory protection : Provide adequate ventilation. Wear NIOSH approved respiratory protection as appropriate.

Hand protection : Material: Impervious gloves

Eye protection : 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 and body protection : Where there is potential for skin contact, have available and wear as appropriate, impervious gloves, apron, pants, jacket, hood and boots.

Exposure Guidelines

Exposure Limit Values

Ethanol

Permissible exposure limit: (OSHA) 1,000 ppm 1,900 mg/m3 8 hr. TWA

TLV (ACGIH) 1,000 ppm STEL

AEL * (DUPONT) 1,000 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

Appearance

Physical state : liquid

Form : liquid

Color : light yellow

Odor : musty

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Odor threshold	: No applicable data available.
pH	: 12 - 14
Melting point/range	: No applicable data available.
Boiling point/boiling range	: No applicable data available.
Flash point	: 52 °C Method: Pensky-Martens closed cup - PMCC
Evaporation rate	: No applicable data available.
Flammability (solid, gas)	: No applicable data available.
Upper explosion limit	: No applicable data available.
Lower explosion limit	: No applicable data available.
Vapour Pressure	: No applicable data available.
Vapour density	: No applicable data available.
Density	: 8.26 - 8.76 lb/gal
Specific gravity (Relative density)	: 1.02 (Water=1.0)
Water solubility	: completely soluble 100%
Solubility(ies)	: No applicable data available.
Partition coefficient: n-octanol/water	: No applicable data available.
Auto-ignition temperature	: No applicable data available.
Decomposition temperature	: Heating can release hazardous gases.
Viscosity, kinematic	: No applicable data available.
Viscosity, dynamic	: No applicable data available.
% Volatile	: 64 - 66 %

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SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No applicable data available.
Chemical stability	:	Stable at normal temperatures and storage conditions.
Possibility of hazardous reactions	:	Polymerization will not occur.
Conditions to avoid	:	No applicable data available.
Incompatible materials	:	Anionic surfactants oxidizers, Reducing agents
Hazardous decomposition products	:	Decomposition does not occur under normal use conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

Inhalation 4 h LC50	:	> 45 mg/l , Rat Information given is based on data obtained from similar substances.
Dermal LD50	:	3,412.5 mg/kg , Rabbit Skin effects
Oral LD50	:	397 mg/kg , Rat
Skin irritation	:	Corrosive after 3 minutes to 1 hour of exposure, Rabbit
Eye irritation	:	Corrosive, Rabbit
Skin sensitization	:	Does not cause skin sensitisation., Guinea pig
Repeated dose toxicity	:	Ingestion Rat - 95 d NOAEL: 31 mg/kg Method: OECD Test Guideline 408 Target Organs: Digestive organs, Spleen, Liver Gastrointestinal effects, Liver effects, Spleen effects
Carcinogenicity	:	Not classifiable as a human carcinogen. Animal testing did not show any carcinogenic effects.
Mutagenicity	:	Animal testing did not show any mutagenic effects. Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

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Reproductive toxicity : No toxicity to reproduction
Animal testing showed no reproductive toxicity.
No effects on or via lactation

Teratogenicity : Animal testing showed no developmental toxicity.

Polyethylene oxide mono-C9-11-alkyl ether

Dermal LD50 : 2,000 - 5,000 mg/kg , Rabbit

Oral LD50 : 1,100 mg/kg , Rat

Skin irritation : Severe skin irritation, Rabbit

Eye irritation : Severe eye irritation, Rabbit

Skin sensitization : Does not cause skin sensitisation., Guinea pig

Repeated dose toxicity : Dermal
Rat
-
Skin effects, Thickening of skin

Oral
Rat
-
No toxicologically significant effects were found.

Reproductive toxicity : No 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.

Tetrasodium ethylene diamine tetraacetate

Oral LD50 : 1,658 mg/kg , Rat

Skin irritation : No skin irritation, Rabbit
slight irritation

Eye irritation : Severe eye irritation, Rabbit

Skin sensitization : Does not cause skin sensitisation., Guinea pig

Repeated dose toxicity : Oral
Rat



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-
No toxicologically significant effects were found.

Inhalation
Rat
-
Respiratory irritation

Carcinogenicity : Not classifiable as a human carcinogen.
Animal testing did not show any carcinogenic effects.

Mutagenicity : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
Animal testing did not show any mutagenic effects.

Reproductive toxicity : No toxicity to reproduction
Animal testing showed no reproductive toxicity.

Teratogenicity : Animal testing showed no developmental toxicity.

Ethanol

Inhalation 4 h LC50 : 124.7 mg/l , Rat
Vapour

Oral LD50 : 10,470 mg/kg , Rat
Narcotic effects

Skin irritation : No skin irritation, Rabbit

Eye irritation : Eye irritation, Rabbit

Skin sensitization : Does not cause skin sensitisation., Mouse

Repeated dose toxicity : Oral
Rat
-
No toxicologically significant effects were found.

Inhalation
Rat
-
No toxicologically significant effects were found.

Carcinogenicity : Not classifiable as a human carcinogen.
Overall weight of evidence indicates that the substance is not carcinogenic.

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- Mutagenicity : Animal testing did not show any mutagenic effects.
Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
- Reproductive toxicity : No 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-fetal development at levels equal to or above those causing maternal toxicity.

Trisodium Nitrotriacetate

- Inhalation 4 h LC50 : > 5 mg/l , Rat
- Dermal LD50 : > 2,000 mg/kg , Rabbit
- Oral LD50 : 1,740 mg/kg , Rat
- Skin irritation : No skin irritation, Rabbit
- Eye irritation : Eye irritation, Rabbit
- Skin sensitization : Does not cause skin sensitisation., Guinea pig
- Repeated dose toxicity : Oral
Rat
-
NOAEL: 150 mg/kg
LOAEL: 560 mg/kg
Organ weight changes
- Carcinogenicity : Limited evidence of a carcinogenic effect.
An increased incidence of tumours was observed in laboratory animals.
Kidney
- Mutagenicity : Animal testing did not show any mutagenic effects.
Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
- Reproductive toxicity : No toxicity to reproduction
Animal testing showed no reproductive toxicity.
No effects on or via lactation
- Teratogenicity : Animal testing showed no developmental toxicity.

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Carcinogenicity

The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

Material	IARC	NTP	OSHA
Trisodium Nitrilotriacetate	2B2B		

SECTION 12. ECOLOGICAL INFORMATION
Aquatic Toxicity

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

96 h LC50	:	Lepomis macrochirus (Bluegill sunfish) 0.515 mg/l
72 h EC50	:	Pseudokirchneriella subcapitata (green algae) 0.049 mg/l OECD Test Guideline 201
72 h NOEC	:	Pseudokirchneriella subcapitata (green algae) 0.0012 mg/l
48 h EC50	:	Daphnia magna (Water flea) 0.016 mg/l OECD Test Guideline 202
28 d	:	NOEC Pimephales promelas (fathead minnow) 0.0322 mg/l US EPA Test Guideline OPP 72-4
21 d	:	NOEC Daphnia magna (Water flea) 0.0125 mg/l OECD Test Guideline 211

Polyethylene oxide mono-C9-11-alkyl ether

96 h LC50	:	Pimephales promelas (fathead minnow) 8.5 - 11 mg/l
48 h EC50	:	Daphnia magna (Water flea) 2.7 - 12 mg/l

Tetrasodium ethylene diamine tetraacetate

96 h LC50	:	Lepomis macrochirus (Bluegill sunfish) 121 mg/l
72 h ErC50	:	Desmodesmus subspicatus (green algae) > 100 mg/l Directive 67/548/EEC, Annex V, C.3.
72 h NOEC	:	Desmodesmus subspicatus (green algae) 100 mg/l Directive

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67/548/EEC, Annex V, C.3.

- 24 h EC50 : Daphnia magna (Water flea) 610 mg/l ISO 6341
- 35 d : NOEC Danio rerio (zebra fish) > 25.7 mg/l OECD Test Guideline 210
- 21 d : NOEC Daphnia magna (Water flea) 25 mg/l

Ethanol

- 96 h LC50 : Pimephales promelas (fathead minnow) 14,200 mg/l
- 96 h ErC50 : Pseudokirchneriella subcapitata (green algae) 675 mg/l OECD Test Guideline 201
- 48 h EC50 : Daphnia magna (Water flea) 5,012 mg/l
- 30 d : NOEC Fish (unspecified species) 245 mg/l

Trisodium Nitrilotriacetate

- 96 h LC50 : Pimephales promelas (fathead minnow) 114 mg/l
- 96 h ErC50 : Desmodesmus subspicatus (green algae) > 100 mg/l
- 72 h NOEC : Desmodesmus subspicatus (green algae) 1.56 mg/l
- 48 h EC50 : Daphnia magna (Water flea) > 500 mg/l
- 224 d : NOEC Pimephales promelas (fathead minnow) > 54 mg/l

Environmental Fate

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

Biodegradability : rapidly biodegradable OECD Test Guideline 301
Readily biodegradable

Bioaccumulation : Does not bioaccumulate.

Polyethylene oxide mono-C9-11-alkyl ether

Biodegradability : 80 %
Readily biodegradable

Bioaccumulation : Bioaccumulation is unlikely.

Tetrasodium ethylene diamine tetraacetate

Biodegradability : 10 % OECD Test Guideline 302B


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Not readily biodegradable.

Bioaccumulation : Lepomis macrochirus (Bluegill sunfish)
 Bioconcentration factor (BCF) : 1.8
 Bioaccumulation is unlikely.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste disposal methods - Product : In accordance with local and national regulations. Do not flush into surface water or sanitary sewer system. Do not contaminate water, food or feed by disposal.

Contaminated packaging : No applicable data available.

SECTION 14. TRANSPORT INFORMATION

DOT	UN number	: 1170
	Proper shipping name	: Ethanol solutions
	Class	: 3
	Packing group	: III
	Labelling No.	: 3
	Reportable Quantity	: Ethanol
IATA_C	UN number	: 1170
	Proper shipping name	: Ethanol solution
	Class	: 3
	Packing group	: III
	Labelling No.	: 3
IMDG	UN number	: 1170
	Proper shipping name	: ETHANOL SOLUTION
	Class	: 3
	Packing group	: III
	Labelling No.	: 3

SECTION 15. REGULATORY INFORMATION

EINECS (EU) Status : Listed.


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- TSCA : On the inventory, or in compliance with the inventory
- SARA 313 Regulated Chemical(s) : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
- 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): Ethanol
- CERCLA Reportable Quantity : 3686 lbs
Based on the percentage composition of this chemical in the product.: Ethanol
- EPA Reg. No. : 6836-139-71654

In the United States this product is regulated by the US Environmental Protection Agency (EPA) under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read and follow all label directions. This product is excluded from listing requirements under EPATSCA.

This Safety Data Sheet is for a pesticide product registered by the US Environmental Protection Agency (USEPA) and is therefore also subject to certain labeling requirements under US pesticide law (FIFRA). These requirements differ from the classification criteria and hazard information required by OSHA for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is the mandatory hazard information required by USEPA on the pesticide label:

DANGER: Corrosive. Causes irreversible eye damage and skin burns. Do not get in eyes, on skin, or on clothing. Wear protective eyewear (goggles, face shield or safety glasses), protective clothing and protective (rubber or chemical resistant) gloves. Harmful if swallowed or absorbed through the skin. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before re-use.

- California Prop. 65 : Chemicals known to the State of California to cause cancer, birth defects or any other harm: none known



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SECTION 16. OTHER INFORMATION

SentraMax(TM), The DuPont Oval Logo(R), and DuPont(TM) are registered trademarks or trademarks of E. I. du Pont de Nemours and Company or its affiliates. Do not use for medical-clinical purposes.

Revision Date : 00/00/0000

Contact person : MSDS Coordinator, DuPont Chemicals and Fluoroproducts, Wilmington, DE 19898, (800) 441-7515

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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