

Material Safety Data Sheet

SURFONIC® N-95

1. Product and company identification

Product name : SURFONIC® N-95
Material uses : Surfactant.
(M)SDS # : 00033063
Validation date : 6/28/2014.
Supplier/Manufacturer : Huntsman International LLC
P.O. Box 4980
The Woodlands, TX 77387

Technical Information: (281) 719-7780
E-Mail: MSDS@huntsman.com

In case of emergency : Chemtrec: (800) 424-9300 or (703) 527-3887

2. Hazards identification

Physical state : Liquid.
Odor : Slight
Color : Pale color.

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency overview : WARNING!
CAUSES EYE IRRITATION.
Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

See toxicological information (Section 11)

GENERAL INFORMATION : Read the entire MSDS for a more thorough evaluation of the hazards.

3. Composition/information on ingredients

Name	CAS number	%
Nonylphenol, ethoxylated	127087-87-0	60 - 100

4. First aid measures

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Ingestion : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

4 . First aid measures

Notes to physician : No specific treatment. Treat symptomatically. Call medical doctor or poison control center immediately if large quantities have been ingested.

5 . Fire-fighting measures

Flash point : Closed cup: 237.78°C (460°F) [DIN 51758 EN 22719 (Pensky-Martens Closed Cup)]
 Hazardous thermal decomposition products : Decomposition products may include the following materials:
 carbon dioxide
 Carbon monoxide

Extinguishing media

Suitable : Use an extinguishing agent suitable for the surrounding fire.

Not suitable : None known.

Special exposure hazards : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6 . Accidental release measures

Personal precautions : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods for cleaning up : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7 . Handling and storage

Handling : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8 . Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
- Engineering measures** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

- Respiratory** : In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9 . Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Pale color.
- Odor** : Slight
- pH** : 6.5 to 7.5
- Boiling/condensation point** : Not available.
- Melting/freezing point** : 5°C (41°F)
- Flash point** : Closed cup: 237.78°C (460°F) [DIN 51758 EN 22719 (Pensky-Martens Closed Cup)]
- Flammable limits** : Not available.
- Auto-ignition temperature** : Not available.
- Vapor pressure** : Not available.
- Specific gravity** : 1.06

9 . Physical and chemical properties

Water solubility	: Soluble
Partition coefficient: n-octanol/water (log Kow)	: Not available.
Viscosity	: Kinematic (room temperature): 1.12 cm ² /s (112 cSt)
Density	: Not available.
Vapor density	: Not available.
Evaporation rate (butyl acetate = 1)	: Not available.

10 . Stability and reactivity

Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Hazardous polymerization	: Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 . Toxicological information

Acute toxicity

Product/ingredient name	Test	Endpoint	Species	Result
Nonylphenol, ethoxylated	-	LD50 Dermal	Rabbit - Male, Female	>3000 mg/kg
	-	LD50 Oral	Rat - Male, Female	3314 mg/kg

Irritation/Corrosion

Product/ingredient name	Test	Species	Result
Nonylphenol, ethoxylated	-	Rabbit	Skin - Mild irritant
	-	Rabbit	Eyes - Mild irritant

Conclusion/ Summary

Skin	: Nonylphenol, ethoxylated	Slightly irritating to the skin.
Eyes	: Nonylphenol, ethoxylated	Slightly irritating to the eyes.

Mutagenicity

Product/ingredient name	Test	Result
Nonylphenol, ethoxylated	Experiment: In vitro Subject: Mammalian-Animal	Negative
	Experiment: In vitro Subject: Mammalian-Animal	Negative
	Experiment: In vitro Subject: bacteria/yeast	Negative
	Metabolic activation: +/-	

Potential acute health effects

11 . Toxicological information

- Inhalation : No known significant effects or critical hazards.
 Ingestion : No known significant effects or critical hazards.
 Skin contact : Slightly irritating to the skin.
 Eye contact : Irritating to eyes.

Potential chronic health effects

- General : No known significant effects or critical hazards.
 Target organs : No known significant effects or critical hazards.
 Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Teratogenicity : No known significant effects or critical hazards.
 Developmental effects : No known significant effects or critical hazards.
 Fertility effects : No known significant effects or critical hazards.

Medical conditions aggravated by over-exposure

None known.

12 . Ecological information

- Environmental effects : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Water polluting material. May be harmful to the environment if released in large quantities.

Aquatic ecotoxicity

Product/ingredient name	Test	Endpoint	Exposure	Species	Result
Nonylphenol, ethoxylated	-	Acute LC50	96 hours	Fish	1 mg/l
	-	Acute LC50	96 hours	Fish	7.6 mg/l
	-	Acute LC50	96 hours	Fish	8.6 mg/l

Persistence and degradability

Product/ingredient name	Test	Period	Result
Nonylphenol, ethoxylated	-	28 days	<60 %

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Nonylphenol, ethoxylated	-	-	Not readily

- Other adverse effects : No known significant effects or critical hazards.

Other ecological information

- BOD5 : Not Determined
 COD : Not Determined
 TOC : Not Determined

13 . Disposal considerations

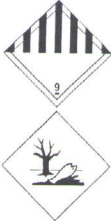
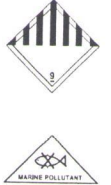

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.



14 . Transport information

Proper shipping name

DOT : Environmentally hazardous substance, liquid, n.o.s. (Nonylphenol, ethoxylated). Marine pollutant
TDG : Environmentally hazardous substance, liquid, n.o.s. (Nonylphenol, ethoxylated). Marine pollutant
IMDG : Environmentally hazardous substance, liquid, n.o.s. (Nonylphenol, ethoxylated). Marine pollutant
IATA : Environmentally hazardous substance, liquid, n.o.s. (Nonylphenol, ethoxylated)

Regulatory information	UN number	Classes	PG*	Label	Additional information
DOT Classification	UN3082	9	III		-
TDG Classification	UN3082	9	III		-
IMDG Class	UN3082	9	III		Emergency schedules (EmS) F-A S-F

14 . Transport information

IATA-DGR Class	UN3082	9	III	 	<u>Passenger and Cargo Aircraft</u> Quantity limitation: 450 L Packaging instructions: 964 <u>Cargo Aircraft Only</u> Quantity limitation: 450 L Packaging instructions: 964
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PG* : Packing group

15 . Regulatory information

United States

- HCS Classification : Irritating material
- U.S. Federal regulations
- TSCA 8(b) inventory : **United States inventory (TSCA 8b):** All components are listed or exempted.
 - TSCA 5(a)2 final significant new use rule (SNUR) : No ingredients listed.
 - TSCA 5(e) substance consent order : No ingredients listed.
 - TSCA 12(b) export notification : No ingredients listed.
- SARA 311/312 : Immediate (acute) health hazard
- Clean Air Act - Ozone Depleting Substances (ODS) : This product does not contain nor is it manufactured with ozone depleting substances.

	<u>Product name</u>	<u>CAS number</u>	<u>Concentration %</u>
SARA 313 Form R - Reporting requirements	: Glycol ethers (Fraction of product meeting EPA definition)		1

CERCLA Hazardous substances :

Components	Concentration %	Section 304 CERCLA Hazardous Substance	CERCLA Reportable Quantity (Lbs)	Product Reportable Quantity (Lbs)
Acetic acid	0.01	Listed	5000	50000000
1,4-Dioxane	0.003	Listed	100	3333333
Ethylene oxide	0.001	Listed		

State regulations

PENNSYLVANIA - RTK : No ingredients listed.

15 . Regulatory information

California Prop 65 : **WARNING:** This product contains less than 0.1% of a chemical known to the State of California to cause cancer.
WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

<u>Ingredient name</u>	<u>Cancer</u>	<u>Reproductive</u>
Ethylene oxide	Yes.	Yes.

International regulations

Canada

WHMIS (Canada) : Class D-2B: Material causing other toxic effects (Toxic).

CEPA DSL : All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International lists

: **Australia inventory (AICS):** All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
Japan inventory: All components are listed or exempted.
Korea inventory: All components are listed or exempted.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.
Taiwan inventory (CSNN): Not determined.

16 . Other information

Label requirements : CAUSES EYE IRRITATION.

Hazardous Material :
 Information System (U.S.A.)

Health	1
Flammability	1
Physical hazards	0
Personal protection	

The customer is responsible for determining the PPE code for this material.

National Fire Protection :
 Association (U.S.A.)



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Version : 3

Indicates information that has changed from previously issued version.

Notice to reader

16 . Other information

While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

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