

## SAFETY DATA SHEET

# NS SERIES: CYAN

### SECTION 1: IDENTIFICATION

#### 1.1. Product identifier

*Trade name:* NS Series: Cyan  
*Product no.:* ixNS-c

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

*Relevant identified uses of the substance or mixture:* Industrial purposes, Printing inks  
*Uses advised against:* Restricted to professional users.  
None known.

#### 1.3. Details of the supplier of the safety data sheet

*Company and address:* **INKCUPS CORP.**  
310 ANDOVER ST.  
DANVERS, MA 01923  
USA  
978-646-8980  
*E-mail:* compliance@inkcups.com  
*SDS date:* 3/25/2024  
*SDS Version:* 1.0

#### 1.4. Emergency telephone number

CHEMTREC 800-424-9300 24hr

### SECTION 2: HAZARD(S) IDENTIFICATION

#### OSHA/HCS status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

#### 2.1. Classification of the substance or mixture

Skin Irrit. 2; H315, Causes skin irritation.  
Skin Sens. 1; H317, May cause an allergic skin reaction.  
Eye Irrit. 2; H319, Causes serious eye irritation.  
Carc. 2; H351, Suspected of causing cancer.  
Repr. 1B; H360, May damage fertility or the unborn child.

#### 2.2. Label elements

*Hazard pictogram(s):*



*Signal word:* Danger

*Hazard statement(s):*

Causes skin irritation. (H315)  
May cause an allergic skin reaction. (H317)  
Causes serious eye irritation. (H319)  
Suspected of causing cancer. (H351)  
May damage fertility or the unborn child. (H360)

*Precautionary statement(s):*

*General:*

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*Prevention:*

Obtain special instructions before use. (P201)  
Do not handle until all safety precautions have been read and understood. (P202)  
Avoid breathing mist/vapor. (P261)  
Wash hands thoroughly after handling. (P264)  
Contaminated work clothing should not be allowed out of the workplace. (P272)  
Wear face protection/protective gloves/protective clothing. (P280)

*Response:*

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)  
IF exposed or concerned: Get medical advice/attention. (P308+P313)  
If skin irritation or rash occurs: Get medical advice/attention. (P333+P313)  
If eye irritation persists: Get medical advice/attention. (P337+P313)  
Take off contaminated clothing and wash it before reuse. (P362+P364)

*Storage:*

Store in a well-ventilated place. (P403)

*Disposal:*

Dispose of contents/container in accordance with local regulation (P501)

*Additional labelling:*

Not applicable.

## 2.3. Other hazards

*Additional warnings:*

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

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## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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### 3.1. Substances

Not applicable. This product is a mixture.

## 3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification
(5-ethyl-1,3-dioxan-5yl)methyl acrylate	CAS No.: 66492-51-1	40-60%	Skin Irrit. 2, H315 Skin Sens. 1B, H317
PROPRIETARY	CAS No.: Confidential	10-15%	Eye Irrit. 2, H319
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	CAS No.: 75980-60-8	10-15%	Skin Sens. 1B, H317 Repr. 1B, H360
Propylidynetrimethanol, propoxylated, esters with acrylic acid	CAS No.: 53879-54-2	10-15%	Skin Irrit. 2, H315 Eye Irrit. 2, H319
hexamethylene diacrylate; hexane-1, 6-diol diacrylate	CAS No.: 13048-33-4	5-10%	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate; isobornyl acrylate	CAS No.: 5888-33-5	5-10%	Skin Sens. 1A, H317
2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate; 2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate;	CAS No.: 15625-89-5	3-5%	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Carc. 2, H351
5-ethyl-1,3-dioxane-5-methanol	CAS No.: 5187-23-5	1-3%	Eye Irrit. 2, H319
phenyl bis(2,4,6-trimethylbenzoyl)phosphine oxide	CAS No.: 162881-26-7	1-3%	Skin Sens. 1A, H317
2-phenoxyethyl acrylate	CAS No.: 48145-04-6	<0.25%	Skin Sens. 1A, H317 Repr. 2, H361

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

## SECTION 4: FIRST-AID MEASURES

### 4.1. Description of first aid measures

*General information:*

If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid).

Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

<i>Inhalation:</i>	Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.
<i>Skin contact:</i>	Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners. If skin irritation occurs: Get medical advice/attention.
<i>Eye contact:</i>	If in eyes: Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. Remove contact lenses. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.
<i>Ingestion:</i>	If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.
<i>Burns:</i>	Not applicable.

#### 4.2. Most important symptoms and effects, both acute and delayed

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

#### 4.3. Indication of any immediate medical attention and special treatment needed

If eye irritation persists: Get medical advice/attention.

#### Information to medics

Bring this safety data sheet or the label from this product.

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## SECTION 5: FIRE-FIGHTING MEASURES

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#### 5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

#### 5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire extinguishing water to enter the sewage system and nearby surface waters. If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Sulphur oxides

Carbon oxides (CO / CO<sub>2</sub>)

## 5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact the Poison Help Line on 1-800-222-1222 (24/7) in order to obtain further advice.

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

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### 6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.  
Contaminated areas may be slippery.

### 6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.  
Keep unauthorized persons away from the spill

### 6.3. Methods and material for containment and cleaning up

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.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

### 6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

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## SECTION 7: HANDLING AND STORAGE

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### 7.1. Precautions for safe handling

Avoid direct contact with the product.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

### 7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

*Recommended storage material:* Keep only in original packaging.

*Storage temperature:* 5 - 30°C

*Incompatible materials:* No specific requirements

### 7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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### 8.1. Control parameters

No substances are listed with a permissible exposure limit (ref: 29 CFR 1910.1000 TABLE Z-1)

## 8.2. Exposure controls

Apply general control to prevent unnecessary exposure

*General recommendations:* Smoking, drinking and consumption of food is not allowed in the work area.

*Exposure scenarios:* There are no exposure scenarios implemented for this product.

*Exposure limits:* Occupational exposure limits have not been defined for the substances in this product.

*Appropriate technical measures:* Apply standard precautions during use of the product. Avoid inhalation of vapors.

*Hygiene measures:* Take off contaminated clothing and wash it before reuse.

*Measures to avoid environmental exposure:* Keep damming materials near the workplace. If possible, collect spillage during work.

## Individual protection measures, such as personal protective equipment

*Generally:* Use only protective equipment with a recognized certification mark, e.g. the UL mark.

### Respiratory Equipment:

Respiratory protection is not needed in the event of adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Approved organic vapor respirator

### Skin protection:

Dedicated work clothing should be worn.




### Hand protection:

The glove material must be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and degradation.



### Eye protection:

Type	Standards	
In the likelihood of direct or incidental exposure, use face protection.	EN166	



## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

*Physical state:* Liquid

*Color:* Cyan

*Odor:* Faint

*Odor threshold (ppm):* Testing not relevant or not possible due to the nature of the product.

<i>pH:</i>	Not applicable
<i>Density (g/cm<sup>3</sup>):</i>	1.07 (25 °C)
<i>Kinematic viscosity:</i>	No data available
<i>Particle characteristics:</i>	Does not apply to liquids.

## Phase changes

<i>Melting point (°F):</i>	Testing not relevant or not possible due to the nature of the product.
<i>Softening point/range (waxes and pastes) (°F):</i>	Does not apply to liquids.
<i>Boiling point (°F):</i>	No data available
<i>Vapor pressure:</i>	Testing not relevant or not possible due to the nature of the product.
<i>Relative vapor density:</i>	Testing not relevant or not possible due to the nature of the product.
<i>Decomposition temperature (°F):</i>	Testing not relevant or not possible due to the nature of the product.

## Data on fire and explosion hazards

<i>Flash point (°F):</i>	Not applicable
<i>Flammability (°F):</i>	Testing not relevant or not possible due to the nature of the product.
<i>Auto-ignition temperature (°F):</i>	Testing not relevant or not possible due to the nature of the product.
<i>Explosion limits (% v/v):</i>	Testing not relevant or not possible due to the nature of the product.

## Solubility

<i>Solubility in water:</i>	No data available
<i>n-octanol/water coefficient (LogKow):</i>	Testing not relevant or not possible due to the nature of the product.
<i>Solubility in fat (g/L):</i>	Testing not relevant or not possible due to the nature of the product.

## 9.2. Other information

<i>Sensitivity to shock:</i>	No
<i>Other physical and chemical parameters:</i>	No data available.
<i>Oxidizing properties:</i>	Testing not relevant or not possible due to the nature of the product.

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

### 10.3. Possibility of hazardous reactions

None known.

### 10.4. Conditions to avoid

None known.

### 10.5. Incompatible materials

No specific requirements

### 10.6. Hazardous decomposition product

The product is not degraded when used as specified in section 1.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### Acute toxicity

Product/substance	hexamethylene diacrylate; hexane-1, 6-diol diacrylate
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	>5000 mg/kg

Product/substance	hexamethylene diacrylate; hexane-1, 6-diol diacrylate
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	3650 mg/kg

Product/substance	Propylidynetrimethanol, propoxylated, esters with acrylic acid
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	>2000 mg/kg

#### Skin corrosion/irritation

Product/substance	hexamethylene diacrylate; hexane-1, 6-diol diacrylate
Result:	Adverse effect observed (Irritating)

Product/substance	Propylidynetrimethanol, propoxylated, esters with acrylic acid
Result:	No adverse effect observed (Not irritating)

Causes skin irritation.

#### Serious eye damage/irritation

Product/substance	hexamethylene diacrylate; hexane-1, 6-diol diacrylate
Result:	Adverse effect observed (Highly Irritating)

Product/substance	Propylidynetrimethanol, propoxylated, esters with acrylic acid
Result:	No adverse effect observed (Not irritating)

Causes serious eye irritation.



## Respiratory sensitization

Based on available data, the classification criteria are not met.

## Skin sensitization

Product/substance hexamethylene diacrylate; hexane-1, 6-diol diacrylate  
Result: Adverse effect observed (sensitizing)

Product/substance Propylidynetrimethanol, propoxylated, esters with acrylic acid  
Result: No adverse effect observed (not sensitizing)

## Germ cell mutagenicity

Product/substance Propylidynetrimethanol, propoxylated, esters with acrylic acid  
Test method: OECD 471  
Species: Bacteria  
Conclusion: No adverse effect observed

## Carcinogenicity

Suspected of causing cancer.

## Reproductive toxicity

Product/substance Propylidynetrimethanol, propoxylated, esters with acrylic acid  
Species: Rat  
Test: NOAEL  
Result:  $\geq 500$  mg/kg bw/day

May damage fertility or the unborn child.

## STOT-single exposure

Based on available data, the classification criteria are not met.

## STOT-repeated exposure

Based on available data, the classification criteria are not met.

## Aspiration hazard

Based on available data, the classification criteria are not met.

## Long term effects

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

## Other information

2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate; 2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate has been classified by IARC as a group 2B carcinogen.

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## SECTION 12: ECOLOGICAL INFORMATION

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### 12.1. Toxicity

Product/substance hexamethylene diacrylate; hexane-1,6-diol diacrylate  
Species: Fish, *Oryzias latipes*  
Duration: 96 hours  
Test: LC50  
Result: 0.38 mg/L

Product/substance hexamethylene diacrylate; hexane-1,6-diol diacrylate  
 Species: Crustacean, Daphnia magna  
 Duration: 48 hours  
 Test: EC50  
 Result: 2.7 mg/L

## 12.2. Persistence and degradability

Product/substance hexamethylene diacrylate; hexane-1,6-diol diacrylate  
 Conclusion: Readily biodegradable

## 12.3. Bioaccumulative potential

Product/substance hexamethylene diacrylate; hexane-1,6-diol diacrylate  
 Log/Kow: 2.81 @ 25C  
 Conclusion: -

## 12.4. Mobility in soil

No data available.

## 12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

## 12.6. Other adverse effects

None known.

## SECTION 13: DISPOSAL CONSIDERATIONS

### RCRA Hazardous waste ("P" and "U" list) (40 CFR 261)


None of the components are listed



### Specific labelling

### Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

## SECTION 14: TRANSPORT INFORMATION

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
DOT	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (hexamethylene diacrylate; hexane-1,6-diol diacrylate, exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate; isobornyl acrylate)	Transport hazard class: 9 Label: 9 Classification code: M6 	III	No	Limited quantities: 5L Tunnel restriction code: (-) See below for additional information.

IMDG	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (hexamethylene diacrylate; hexane-1,6-diol diacrylate, exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate; isobornyl acrylate)	Transport hazard class: 9 Label: 9 Classification code: M6 	III	No	Limited quantities: 5L EmS: F-A S-F See below for additional information.
IATA	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (hexamethylene diacrylate; hexane-1,6-diol diacrylate, exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate; isobornyl acrylate)	Transport hazard class: 9 Label: 9 Classification code: M6 	III	No	See below for additional information.

\* Packing group

\*\* Environmental hazards

### Additional information

Although this product is environmentally hazardous, the environmentally hazardous substance mark has been omitted as the product is supplied in packaging with a maximum quantity of 5 L / 5 kg.

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DOT / See § 172.101 Hazardous Materials Table for any information on special provisions, requirements, or warnings in connection with transport. See § 172.602, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport. IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

This product is within scope of the regulations of transport of dangerous goods.

### 14.6. Special precautions for user

Not applicable.

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available.

## SECTION 15: REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

## 15.2. U.S. Federal regulations

<i>TSCA (the non-confidential portion):</i>	(5-ethyl-1,3-dioxan-5-yl)methyl acrylate is listed Propylidynetrimethanol, propoxylated, esters with acrylic acid is listed PROPRIETARY is listed hexamethylene diacrylate; hexane-1,6-diol diacrylate is listed exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate; isobornyl acrylate is listed diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide is listed phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide is listed 2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate; 2,2-bis(acryloyloxymethyl)butyl acrylate; trimethylolpropane triacrylate is listed 5-ethyl-1,3-dioxane-5-methanol is listed 2-phenoxyethyl acrylate is listed
<i>Clean Air Act:</i>	None of the components are listed
<i>EPCRA Section 302:</i>	None of the components are listed
<i>EPCRA Section 304:</i>	None of the components are listed
<i>EPCRA section 313:</i>	None of the components are listed
<i>CERCLA:</i>	None of the components are listed

### State regulations

<i>California / Prop. 65:</i>	None of the components are listed
<i>Massachusetts / Right To Know Act:</i>	None of the components are listed
<i>New Jersey / Right To Know Act:</i>	None of the components are listed
<i>New York / Right To Know Act:</i>	None of the components are listed
<i>Pennsylvania / Right To Know Act:</i>	None of the components are listed

## 15.4. Restrictions for application

Restricted to professional users.

## 15.5. Demands for specific education

No specific requirements.

## 15.6. Additional information

Not applicable.

## 15.7. Chemical safety assessment

No

## 15.8. Sources

OSHA Hazard Communication Standard (29 CFR 1910.1200)

## SECTION 16: OTHER INFORMATION

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### Full text of H-phrases as mentioned in section 3

H315, Causes skin irritation.

H317, May cause an allergic skin reaction.

H319, Causes serious eye irritation.

H351, Suspected of causing cancer.

H360, May damage fertility or the unborn child.

H361, Suspected of damaging fertility or the unborn child.

### The full text of identified uses as mentioned in section 1

None known.

### Abbreviations and acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CERCLA = Comprehensive Environmental Response Compensation and Liability Act

DOT = Department of Transportation

EINECS = European Inventory of Existing Commercial chemical Substances

EPCRA = Emergency Planning and Community Right-To-Know Act

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

HCIS = Hazardous Chemical Information System

HNOC = Hazards Not Otherwise Classified

IARC = International Agency for Research on Cancer

IATA = International Air Transport Association

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

NFPA = National Fire Protection Association

NIOSH = National Institute for Occupational Safety and Health

OECD = Organization for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration

PBT = Persistent, Bioaccumulative and Toxic

RCRA = Resource Conservation and Recovery Act

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

RRN = REACH Registration Number

SARA = Superfund Amendments and Reauthorization Act SCL

= A specific concentration limit.

STEL = Short-term exposure limits

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TSCA = The Toxic Substances Control Act

TWA = Time weighted average UN

= United Nations

UVBC = Unknown or variable composition, complex reaction products or of biological materials

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

## **Additional information**

The classification of the mixture in regard of health hazards is in accordance with the calculation methods given by HCS (29 CFR 1910.1200).

## **Other**

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: US-en