

# SAFETY DATA SHEET

according to the Globally Harmonized System and US regulation

# **Dissolvine Na2-P**

Version 2 Revision Date 11/14/2018 Print Date 07/11/2019 US / Z8

#### 1. IDENTIFICATION

Product name : Dissolvine Na2-P

Product Use Description : Specific use(s): Chelating agent

Specific use(s): Food additive

Company : Nouryon

Functional Chemicals B.V.

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NL

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### 2. HAZARDS IDENTIFICATION

### **Emergency Overview**

Appearance	powder
Color	white
Odor	odorless
Hazard Summary	Risk of dust explosion.

#### **GHS Classification**

Combustible dust

Acute toxicity, Category 4, Inhalation

Specific target organ systemic toxicity - repeated exposure, Category 2, Inhalation, Respiratory Tract

**GHS** label elements

Hazard pictograms





Signal Word : Warning

Hazard Statements : If small particles are generated during further processing,

handling or by other means, may form combustible dust

concentrations in air. H332 Harmful if inhaled.

H373 May cause damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.

Precautionary Statements : Prevention:

P260 Do not breathe dust or fume.

P271 Use only outdoors or in a well-ventilated area.

Response:

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON

CENTER/doctor if you feel unwell.

P314 Get medical advice/ attention if you feel unwell.

Disposal:

P501 Dispose of contents/container in accordance with local

regulation.

Carcinogenicity:

IARC : No ingredient of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed

human carcinogen by IARC.

OSHA : No component of this product present at levels greater than or

equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP : No component of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated

carcinogen by NTP.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Common Name : Ethylenediaminetetraacetic acid, disodium salt, dihydrate

Pure substance/mixture : Substance

**Hazardous ingredients** 

Chemical name	CAS-No.	Classification	Concentration [% W/W]
Ethylenediaminetetraacetic acid, disodium salt	139-33-3	Acute Tox. 4; H332 STOT RE 2; H373	>= 90 - < 100

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### 4. FIRST AID MEASURES

General advice : Move out of dangerous area.

Consult a physician.

Show this material safety data sheet to the doctor in

attendance.

Inhalation : Remove to fresh air.

Keep patient warm and at rest. Rinse nose and mouth with water.

Skin contact : Take off contaminated clothing and shoes immediately.

Eye contact : Rinse with plenty of water.

Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

Ingestion : Clean mouth with water and drink afterwards plenty of water.

Never give anything by mouth to an unconscious person.

Obtain medical attention.

Notes to physician

Symptoms : The symptoms and effects are as expected from the hazards

as shown in section 2. No specific product related symptoms

are known.

Risks : Harmful if inhaled.

May cause damage to organs through prolonged or repeated

exposure if inhaled.

Treatment : Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Specific hazards during fire

uring fire : Do not allow run-off from fire fighting to enter drains or water azards courses.

fighting / Specific hazards

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arising from the chemical Risks of ignition followed by flame propagation or secondary

explosions shall be prevented by avoiding accumulation of

dust, e.g. on floors and ledges.

Combustion products : Nitrogen oxides (NOx)

Special protective equipment

for fire-fighters

: In the event of fire, wear self-contained breathing apparatus.

Further information : Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

See also Section 9. Physical and chemical properties: Safety data

### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.

Wear respiratory protection. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.

Emergency measures on

accidental release

: Evacuate personnel to safe areas.

Only qualified personnel equipped with suitable protective

equipment may intervene.

Prevent unauthorized persons entering the zone.

Environmental precautions : Do not flush into surface water or sanitary sewer system.

If the product contaminates rivers and lakes or drains inform

respective authorities.

Methods for cleaning up /

Methods for containment

: Pick up and arrange disposal without creating dust.

Sweep up and shovel.

Keep in suitable, closed containers for disposal.

Reference to other sections : For disposal considerations see section 13.

For personal protection see section 8.

#### 7. HANDLING AND STORAGE

Handling

Advice on safe handling : For personal protection see section 8.

Avoid formation of respirable particles.

Do not breathe vapors/dust.

Keep away from heat/sparks/open flames/hot surfaces. No

smoking.

Smoking, eating and drinking should be prohibited in the

application area.

Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national

regulations.

Advice on protection against : Provide appropriate exhaust ventilation at places where dust

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fire and explosion is formed.

No sparking tools should be used.

Storage

Requirements for storage : Prevent unauthorized access.

areas and containers Keep in a dry place.

Store at room temperature in the original container.

Keep container tightly closed.

Other data : No decomposition if stored and applied as directed.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### **Exposure Guidelines**

Ingredients	CAS-No.	Value	Control parameters	Update	Basis	Form of exposure			
Dust		TWA	50 Million particles per cubic foot	2011-07-01	OSHA Z-3	total dust			
	Further information	d: / liste sar 1.	a: Based on impinger samples counted by light-field techniques. d: All inert or nuisance dusts, w hether mineral, inorganic, or organic, not listed specifically by substance name are covered by this limit, w hich is the same as the Particulates Not Otherw ise Regulated (PNOR) limit in Table Z-1. mppcf X 35.3 = million particles per cubic meter = particles per c.c						
Dust		TWA	15 mg/m3	2011-07-01	OSHA Z-3	total dust			
	Further information	liste	d: All inert or nuisance dusts, w hether mineral, inorganic, or organic, not listed specifically by substance name are covered by this limit, w hich is the same as the Particulates Not Otherw ise Regulated (PNOR) limit in Table Z-1.						
Dust		TWA	5 mg/m3	2011-07-01	OSHA Z-3	respirable fraction			
	Further information	liste	d: All inert or nuisance dusts, w hether mineral, inorganic, or organic, not listed specifically by substance name are covered by this limit, w hich is th same as the Particulates Not Otherw ise Regulated (PNOR) limit in Table 1.						
Dust		TWÁ	15 Million particles per cubic foot	2011-07-01	OSHA Z-3	respirable fraction			
	Further information	d: / liste sar 1.	a: Based on impinger samples counted by light-field techniques. d: All inert or nuisance dusts, w hether mineral, inorganic, or organic, not listed specifically by substance name are covered by this limit, w hich is same as the Particulates Not Otherw ise Regulated (PNOR) limit in Table 1. mppcf X 35.3 = million particles per cubic meter = particles per c.c						

ACGIH: American Conference of Governmental Industrial Hygienists

BEI: Biological Exposure Index

MAC: Maximum Allowable Concentration

NIOSH: National Institute for Occupational Safety and Health

OEL: Occupational exposure limit.

STEL: Short term exposure limit TWA: Time Weighted Average

### Appropriate engineering controls

Provide appropriate exhaust ventilation at places where dust is formed.

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Personal protective equipment

Eye/face protection : Tightly fitting safety goggles

Skin and body protection : Protective suit

Respiratory protection : Half mask with a particle filter P2 (EN 143)

Hygiene measures : Handle in accordance with good industrial hygiene and safety

practice.

When using do not eat or drink. When using do not smoke.

Wash hands before breaks and at the end of workday.

**Environmental exposure controls** 

General advice : Do not flush into surface water or sanitary sewer system.

If the product contaminates rivers and lakes or drains inform

respective authorities.

9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** 

Form : powder

Color : white

Odor : odorless

Odor Threshold : Not applicable

Safety data

pH : 4 - 5 1% (water)

Melting point : Decomposes before melting.

Boiling point/boiling range : Not applicable

Flash point : Not applicable

Ignition temperature : >= 200 °C

Method: Auto-ignition of a 5mm dust layer according to EN

50281-2-1

Evaporation rate : Not applicable

Flammability (solid, gas) : Not classified as a flammability hazard

May form combustible dust concentrations in air during

processing, handling or other means.

Flammability (liquids) : Not applicable

Lower explosion limit : >= 40 g/m3

Upper explosion limit : Not applicable

Vapor pressure : Not applicable

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Relative vapor density : Not applicable

Relative density : No data available

Bulk density : ca. 600 kg/m3

Water solubility : ca. 100 g/l

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

 $\log Pow < 0$ 

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity, dynamic : Not applicable

Viscosity, kinematic : Not applicable

Explosive properties : Not explosive

Oxidizing properties : Not classified as oxidizing.

This material safety datasheet only contains information relating to safety and does not replace any product information or product specification.

### 10. STABILITY AND REACTIVITY

Conditions to avoid : None known.

Materials to avoid : None known.

Hazardous decomposition

products

: Carbon oxides

nitrogen oxides (NOx)

Thermal decomposition : No data available

Reactivity : Stable under normal conditions.

Chemical stability : Stable under recommended storage conditions.

Hazardous reactions : Dust may form explosive mixture in air.

### 11. TOXICOLOGICAL INFORMATION

### PRODUCT INFORMATION:

**Hazard Summary** 

Acute toxicity : Harmful if inhaled.

Skin corrosion/irritation : Not classified based on available information.

Serious eye damage/eye

irritation

: Not classified based on available information.

Respiratory or skin : Respiratory sensitization: Not classified based on available

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sensitization information.

Skin sensitization: Not classified based on available

information.

Germ cell mutagenicity Not classified based on available information.

Carcinogenicity Not classified based on available information.

Not classified based on available information. Reproductive toxicity

Not classified based on available information. STOT-single exposure

STOT-repeated exposure May cause damage to organs (Respiratory Tract) through

prolonged or repeated exposure if inhaled.

Not classified based on available information. Aspiration hazard

**Potential Health Effects** 

Inhalation : Product dust may be irritating to respiratory system.

Harmful if inhaled.

Skin : Product dust may be irritating to skin.

Eves : Product dust may be irritating to eyes.

May be harmful if swallowed. Ingestion

Aggravated Medical

Condition

None known.

Symptoms of Overexposure The symptoms and effects are as expected from the hazards

as shown in section 2. No specific product related symptoms

are known.

**Toxicology Assessment** 

Further information No further data available.

Test result

Acute oral toxicity : Acute toxicity estimate: 2,769 mg/kg

Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: 1.66 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Method: Calculation method

Target Organ Systemic Toxicant - Repeated

Routes of exposure: Inhalation Target Organs: Respiratory Tract

exposure

The substance or mixture is classified as specific target organ

toxicant, repeated exposure, category 2.

Carcinogenicity:

**IARC** No ingredient of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed

human carcinogen by IARC.

**OSHA** No component of this product present at levels greater than or

equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP : No component of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated

carcinogen by NTP.

#### **TOXICOLOGY DATA FOR THE INGREDIENTS:**

#### Test result

Component: Ethylenediaminetetraacetic acid, disodium salt

Acute oral toxicity : LD50: > 2,000 mg/kg

Species: Rat

Acute inhalation toxicity : LC50 (Rat): > 1 - 5 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Method: OECD Test Guideline 412

Skin irritation : Species: Rabbit

Result: No skin irritation

Method: OECD Test Guideline 404

Eye irritation : Species: Rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

Sensitization : Maximization Test

Species: Guinea pig

Result: Does not cause skin sensitization. Method: OECD Test Guideline 406

Germ cell mutagenicity

Genotoxicity in vitro : Result: negative

Method: Mutagenicity (Salmonella typhimurium - reverse

mutation assay)

Genotoxicity in vivo : Chromosome aberration test in vivo

Species: Mouse

Method: OECD Test Guideline 474

Result: negative

Carcinogenicity : Species: Rat

Application Route: Ingestion

Result: Not classified due to data which are conclusive

although insufficient for classification.

Read-across (Analogy)

Reproductive toxicity : Species: Rat

NOAEL:

F1: > 250 mg/kg,

Read-across (Analogy), Information taken from reference

works and the literature.

Target Organ Systemic Toxicant - Single exposure : Based on available data, the classification criteria are not met.

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Target Organ Systemic Toxicant - Repeated

exposure

: Routes of exposure: Inhalation Target Organs: Respiratory Tract

The substance or mixture is classified as specific target organ

toxicant, repeated exposure, category 2.

Aspiration toxicity : Not classified due to data which are conclusive although

insufficient for classification.

### 12. ECOLOGICAL INFORMATION

#### PRODUCT INFORMATION:

### **Ecotoxicology Assessment**

Additional ecological

information

: None known.

....

### Test result

### Elimination information (persistence and degradability)

Bioaccumulation : Not expected considering the low log Pow value.

Mobility : Adsorption to the solid soil particles is not expected.

Biodegradability : Not readily biodegradable, but will degrade after a longer

period.

#### Further information on ecology

Biochemical Oxygen

Demand (BOD)

: No data available

### Hazardous to the ozone layer

Regulation : 40 CFR Protection of Environment; Part 82 Protection of

Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks : This product neither contains, nor was manufactured with a

Class I or Class II ODS as defined by the U.S. Clean Air Act

Section 602 (40 CFR 82, Subpt. A, App.A + B).

### **INGREDIENTS:**

### Test result

### Component: Ethylenediaminetetraacetic acid, disodium salt

### **Ecotoxicity effects**

Toxicity to fish : LC50: > 100 mg/l

Exposure time: 96 h Species: Fish

Read-across (Analogy)

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (calculated): 140 mg/l

Exposure time: 48 h

Species: Daphnia magna (Water flea)

Method: DIN 38412

Toxicity to bacteria : EC50: > 500 mg/l

Exposure time: 30 min Species: activated sludge Test Type: Respiration inhibition Method: OECD Test Guideline 209

Toxicity to fish (Chronic

toxicity)

: NOEC: > 25.7 mg/l Exposure time: 35 d

Species: Danio rerio (zebra fish) Test Type: flow-through test Method: OECD Test Guideline 210

Read-across (Analogy)

Toxicity to daphnia and other

aquatic invertebrates

: NOEC: > 25 mg/l Exposure time: 21 d

(Chronic toxicity) Species: Daphnia magna (Water flea)

Elimination information (persistence and degradability)

Bioaccumulation : Not expected considering the low log Pow value.

Mobility : Adsorption to the solid soil particles is not expected.

Biodegradability : Not readily biodegradable, but will degrade after a longer

period.

Further information on ecology

Biochemical Oxygen

Demand (BOD)

: No data available

Chemical Oxygen Demand

(COD)

: 630 mg/g

### 13. DISPOSAL CONSIDERATIONS

Product : Do not dispose of waste into sewer.

Do not contaminate ponds, waterways or ditches with

chemical or used container.

Hazardous waste

Dispose of contents/container in accordance with local

regulation.

Contaminated packaging : Empty remaining contents.

Dispose of as unused product.

## 14. TRANSPORT INFORMATION

### **International Regulations**

**ADR** 

Not regulated as a dangerous good

**UNRTDG** 

Not regulated as a dangerous good

**IATA-DGR** 

Not regulated as a dangerous good

**IMDG-Code** 

Not regulated as a dangerous good

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

### Further information for transport

Not classified as dangerous in the meaning of transport regulations.

#### **Domestic regulation**

#### **49 CFR**

Not regulated as a dangerous good

**TDG** 

Not regulated as a dangerous good

NOM-002-SCT

Not regulated as a dangerous good

#### 15. REGULATORY INFORMATION

#### **Notification status**

DSL : YES. All components of this product are on the Canadian DSL : YES. On the inventory, or in compliance with the inventory **AICS** NZIoC : YES. On the inventory, or in compliance with the inventory **ENCS** : YES. On the inventory, or in compliance with the inventory : YES. On the inventory, or in compliance with the inventory ISHL KECI : YES. On the inventory, or in compliance with the inventory : YES. On the inventory, or in compliance with the inventory **PICCS IECSC** : YES. On the inventory, or in compliance with the inventory TCSI YES. On the inventory, or in compliance with the inventory

TSCA : YES. All chemical substances in this product are either listed on the

TSCA Inventory or in compliance with a TSCA Inventory exemption.

For explanation of abbreviations, see section 16.

### **TSCA list**

TSCA 5(a)(2) : No substances are subject to a Significant New Use Rule. TSCA 12(b) : No substances are subject to TSCA 12(b) export notification

requirements.

### **EPCRA - Emergency Planning and Community Right-to-Know**

#### **CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Acute toxicity (any route of exposure)

Specific target organ toxicity (single or repeated exposure)

SARA 302 : This material does not contain any components with a section

302 EHS TPQ.

SARA 313 : 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.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals subject to disclosure and listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

#### **Clean Water Act**

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

### **US State Regulations**

### Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

### Pennsylvania Right To Know

Ethylenediaminetetraacetic acid, 139-33-3

disodium salt

Water 7732-18-5

### California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

### 16. OTHER INFORMATION

#### **Full text of H-Statements**

H332 : Harmful if inhaled.

H373 : May cause damage to organs through prolonged or repeated

exposure if inhaled.

Full text of other abbreviations

OSHA Z-3 : USA. Occupational Exposure Limits (OSHA) - Table Z-3

Mineral Dusts

OSHA Z-3 / TWA : 8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR -Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN -Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS -Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO -International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 -Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose): MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods: TSCA - Toxic Substances Control Act (United States): UN - United Nations: UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

### **Further information**

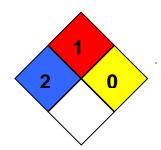
HMIS Classification : Health Hazard: 2

Chronic Health Hazard: \*

Flammability: 2 Physical hazards: 0

NFPA Classification : Health Hazard: 2

Fire Hazard: 1
Reactivity Hazard: 0



### Notification status explanation

REACH 1907/2006 (EU)

DSL Canadian Domestic Substances List (DSL)
AICS Australia Inventory of Chemical Substances (AICS)
NZIOC New Zealand. Inventory of Chemical Substances

ENCS Japan. ENCS - Existing and New Chemical Substances Inventory

ISHL Japan. ISHL - Inventory of Chemical Substances
KECI Korea. Korean Existing Chemicals Inventory (KECI)

PICCS Philippines Inventory of Chemicals and Chemical Substances

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(PICCS)

IECSC China. Inventory of Existing Chemical Substances in China (IECSC)

TCSI Taiwan Chemical Substance Inventory (TCSI)

TSCA United States TSCA Inventory

#### **Further information**

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The information in this material safety data sheet should be provided to all who will use, handle, store, transport or otherwise be exposed to this product. The user must determine the appropriate measures that need to be implemented for the use and handling of this product in the c ontext of the user's operations and use of this product. The information contained herein supersedes all previously issued bulletins on the subject matter covered. If the date on this document is more than three years old, call to make certain that this sheet is current. No warranty is made as to the product's merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. User must determine for himself, by preliminary tests or otherwise, the suitability of this product for his purposes, including mixing with other products. Nothing contained herein shall be construed as granting or extending any license under any patent.

The information provided in this Material 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.