

# SAFETY DATA SHEET

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# 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product identifier** 

Product code 88367

Product name Reflex Blue

Product category 8800 Series SV Screen Ink

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use
Recommended use Printing operations

Details of the supplier of the safety data sheet

UNITED STATES
UNITED KINGDOM
Nazdar Company
Nazdar Limited
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Shawnee, KS 66227
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Heaton Mersey

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Fax: +001-913-422-2294 www.nazdar.com

Emergency telephone number

USA: Chemtrec: +001-800-424-9300 Outside USA: Chemtrec: +001-703-527-3887

24 Hour Emergency Phone Number

# 2. HAZARDS IDENTIFICATION

### Classification

Acute toxicity - Oral	Category 4 - (H302)
Serious eye damage/eye irritation	Category 1 - (H318)
Carcinogenicity	Category 2 - (H351)
Aspiration toxicity	Category 1 - (H304)
Chronic aquatic toxicity	Category 2 - (H411)
Flammable liquids	Category 3 - (H226)

#### Label elements





# **Hazard Statements**

H302 - Harmful if swallowed

H304 - May be fatal if swallowed and enters airways

H318 - Causes serious eye damage

H351 - Suspected of causing cancer

H411 - Toxic to aquatic life with long lasting effects

H226 - Flammable liquid and vapor

### **Precautionary Statements**

P264 - Wash face, hands and any exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P330 - Rinse mouth

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P202 - Do not handle until all safety precautions have been read and understood

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P308 + P313 - IF exposed or concerned: Get medical advice/attention

P273 - Avoid release to the environment

P331 - Do NOT induce vomiting

P233 - Keep container tightly closed

P403 + P235 - Store in a well-ventilated place. Keep cool

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

#### Hazards not otherwise classified (HNOC)

Causes mild skin irritation. Toxic to aquatic life.

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Mixture

Inhalation

Component	CAS-No	Weight %	Trade Secret	Note
Solvent naphtha, petroleum, heavy aromatic	64742-94-5	30 - 60	*	
Butyrolactone	96-48-0	10 - 30	*	
2-Butoxyethanol	111-76-2	5 - 10	*	
Naphthalene (constituent)	91-20-3	1 - 5	*	1
Ethylene glycol monopropyl ether	2807-30-9	1 - 5	*	
1,2,4-Trimethylbenzene (constituent)	95-63-6	<1	*	1

<sup>\*</sup>The exact percentage (concentration) of composition has been withheld as a trade secret.

Note 1. Type of chemical: Constituent

# 4. FIRST AID MEASURES

### **Description of first aid measures**

**General Advice** Show this safety data sheet to the doctor in attendance.

**Eye Contact** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and

continue flushing for at least 15 minutes. Get medical attention if irritation develops and

persists.

**Skin Contact** Wash off immediately with soap and plenty of water for at least 15 minutes. Remove

contaminated clothing. If irritation (redness, rash, blistering) develops, get medical attention.

Remove person to fresh air and keep comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. Get medical attention immediately.

Ingestion Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a

physician or poison control center immediately.

# Most important symptoms and effects, both acute and delayed

None under normal use conditions.

# Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

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# 5. FIRE-FIGHTING MEASURES

# **Suitable Extinguishing Media**

Foam. Carbon dioxide (CO2). Dry chemical. Water spray. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### **Unsuitable Extinguishing Media**

No information available.

# **Specific Hazards Arising from the Chemical**

Thermal decomposition can lead to release of irritating gases and vapors. May emit toxic fumes under fire conditions.

#### **Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool containers / tanks with water spray. Sealed containers may rupture when heated.

# 6. ACCIDENTAL RELEASE MEASURES

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

Personal Precautions Remove all sources of ignition. Ventilate the area. Avoid contact with eyes, skin and

clothing. Avoid breathing dust or vapor. Evacuate personnel to safe areas. Keep people

away from and upwind of spill/leak.

# **Environmental precautions**

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. Keep out of drains, sewers, ditches and waterways. Local authorities should be advised if significant spillages cannot be contained.

# Methods and material for containment and cleaning up

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). Use clean non-sparking tools to collect absorbed material.

# 7. HANDLING AND STORAGE

# Precautions for safe handling

**Handling**Use personal protective equipment as required. Do not eat, drink or smoke when using this

product. Ensure adequate ventilation.

# Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from

open flames, hot surfaces and sources of ignition. Keep container closed when not in use.

Keep out of the reach of children.

**Incompatible Products** Strong acids. Strong bases. Strong oxidizing agents. Reducing agent.

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

# Control parameters

# **Exposure limits**

Component	ACGIH TLV
2-Butoxyethanol	TWA: 20 ppm
111-76-2	
Naphthalene (constituent)	TWA: 10 ppm
91-20-3	Skin

Component	OSHA PEL
2-Butoxyethanol	TWA: 50 ppm

	TWA: 240 mg/m³ Skin
Naphthalene (constituent)	TWA: 10 ppm
91-20-3	TWA: 50 mg/m <sup>3</sup>

Component	OSHA PEL (vacated)
2-Butoxyethanol	TWA: 25 ppm
111-76-2	TWA: 120 mg/m <sup>3</sup>
	Skin
Naphthalene (constituent)	TWA: 10 ppm
91-20-3	TWA: 50 mg/m <sup>3</sup>
	STEL: 15 ppm
	STEL: 75 mg/m <sup>3</sup>

Component	Ontario TWAEV
2-Butoxyethanol	TWA: 20 ppm
111-76-2	
Naphthalene (constituent)	TWA: 10 ppm
91-20-3	Skin
Ethylene glycol monopropyl ether	TWA: 25 ppm
2807-30-9	TWA: 110 mg/m <sup>3</sup>
	Skin

Component	Mexico OEL (TWA)
2-Butoxyethanol	TWA/VLE-PPT: 26 ppm
111-76-2	TWA/VLE-PPT: 120 mg/m <sup>3</sup>
	STEL/PPT-CT: 75 ppm
	STEL/PPT-CT: 360 mg/m <sup>3</sup>
Naphthalene (constituent)	TWA/VLE-PPT: 10 ppm
91-20-3	TWA/VLE-PPT: 50 mg/m <sup>3</sup>
	STEL/PPT-CT: 15 ppm
	STEL/PPT-CT: 75 mg/m <sup>3</sup>

### Appropriate engineering controls

# **Engineering Measures**

Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan. Users are advised to consider national Occupational Exposure Limits or other equivalent values. In case of insufficient ventilation, wear suitable respiratory equipment.

#### Individual protection measures, such as personal protective equipment

**Eye/Face Protection** Wear safety glasses with side shields (or goggles). If splashes are likely to occur:. Wear

suitable face shield. Ensure that eyewash stations and safety showers are close to the

workstation location.

**Skin Protection** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls,

as appropriate, to prevent skin contact.

**Hand Protection** Chemical resistant protective gloves.

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding >480 minutes of permeation time): eg. nitrile rubber (0.4 mm), chloroprene

rubber (0.5 mm), polyvinylchloride (0.7 mm) and other

Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers. Taking into account the varying conditions, the practical usage of a

chemical-protective glove in practice may be much shorter than the permeation time

determined through testing.

Due to different glove types, the manufacturer's directions for use should be observed. Replace gloves immediately when torn or any change in appearance is noticed such as

dimension, color, flexibility.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved

respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of

the material.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Wash hands before eating, drinking or smoking. Wash contaminated clothing before reuse. Avoid contact with eyes, skin and clothing. Wear suitable gloves and eye/face protection. Regular cleaning of equipment, work area and clothing is recommended.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

**Physical State** Liquid **Appearance** Colored Liquid

Odor Characteristic **Odor Threshold** No information available

Property Values Remarks • Method

No data available Hq

**Melting Point / Freezing Point** No data available > 149 °C / 300 °F **Boiling Point / Boiling Range** 

49 °C / 120 °F Flash Point Pensky Martens Closed Cup (PMCC)

**Evaporation rate** No data available

Flammability Limit in Air

Upper flammability limit No data available Lower flammability limit No data available **Vapor Pressure** No data available

**Vapor Density** No data available

**Specific Gravity** 1.04

Water Solubility No data available Solubility in other solvents No data available Partition coefficient: n-octanol/water No data available No data available **Autoignition Temperature** No data available **Decomposition temperature** 

Kinematic viscosity No data available Dynamic viscosity No data available

**Explosive Properties** No data available **Oxidizing Properties** No data available

Other Information

**Photochemically Reactive** Yes Weight Per Gallon (lbs/gal) 8.7

VOC by weight %	VOC by volume %	VOC lbs/gal	VOC grams/liter
(less water)	(less water)	(less water)	(less water)
67.63	69.1	5.89	705.82

# 10. STABILITY AND REACTIVITY

### Reactivity

No information available.

#### Chemical stability

Stable under normal conditions.

#### Possibility of Hazardous Reactions

None under normal processing.

#### Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.

#### Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents. Reducing agent.

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### **Hazardous Decomposition Products**

Thermal decomposition can lead to release of irritating gases and vapors. Carbon dioxide (CO2). Carbon monoxide.

# 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

InhalationSpecific test data for the substance or mixture is not available.Eye ContactSpecific test data for the substance or mixture is not available.Skin ContactSpecific test data for the substance or mixture is not available.

Ingestion Specific test data for the substance or mixture is not available. Harmful if swallowed. (based

on components).

Component	Oral LD50	
Solvent naphtha, petroleum, heavy aromatic	> 5000 mg/kg (Rat)	
64742-94-5		
Butyrolactone	= 1540 mg/kg (Rat)	
96-48-0		
2-Butoxyethanol	= 470 mg/kg ( Rat )	
111-76-2		
Naphthalene (constituent)	= 1110 mg/kg ( Rat )	
91-20-3		
Ethylene glycol monopropyl ether	= 3089 mg/kg (Rat)	
2807-30-9		
1,2,4-Trimethylbenzene (constituent)	= 3280 mg/kg ( Rat )	
95-63-6		

Component	Dermal LD50
Solvent naphtha, petroleum, heavy aromatic	> 2 mL/kg (Rabbit)
64742-94-5	
2-Butoxyethanol	= 435 mg/kg(Rabbit)
111-76-2	
Naphthalene (constituent)	= 1120 mg/kg (Rabbit)
91-20-3	
Ethylene glycol monopropyl ether	= 870 mg/kg(Rabbit)
2807-30-9	
1,2,4-Trimethylbenzene (constituent)	> 3160 mg/kg ( Rabbit )
95-63-6	

Component	Inhalation LC50
Solvent naphtha, petroleum, heavy aromatic 64742-94-5	> 590 mg/m³(Rat)4 h
Butyrolactone 96-48-0	> 5100 mg/m³(Rat)4 h
2-Butoxyethanol 111-76-2	= 450 ppm (Rat) 4 h = 486 ppm (Rat) 4 h
Naphthalene (constituent) 91-20-3	> 340 mg/m³(Rat)1 h
Ethylene glycol monopropyl ether 2807-30-9	= 1530 ppm (Rat) 7 h
1,2,4-Trimethylbenzene (constituent) 95-63-6	= 18 g/m³(Rat)4 h

# Information on toxicological effects

**Symptoms** Specific test data for the substance or mixture is not available.

# Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Skin corrosion/irritation** Specific test data for the substance or mixture is not available.

Eye damage/irritation Specific test data for the substance or mixture is not available. Causes serious eye

damage. (based on components).

IrritationSpecific test data for the substance or mixture is not available.CorrosivitySpecific test data for the substance or mixture is not available.SensitizationSpecific test data for the substance or mixture is not available.

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Mutagenic Effects Specific test data for the substance or mixture is not available.

Carcinogenic effects Specific test data for the substance or mixture is not available. Suspected of causing

cancer. (based on components).

Reproductive Effects
Specific test data for the substance or mixture is not available.
STOT - single exposure
STOT - repeated exposure
Chronic Toxicity
Specific test data for the substance or mixture is not available.
Specific test data for the substance or mixture is not available.
Specific test data for the substance or mixture is not available.

Aspiration hazard Specific test data for the substance or mixture is not available. May be fatal if swallowed

and enters airways. (based on components).

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	ACGIH	
2-Butoxyethanol	A3	
111-76-2		
Naphthalene (constituent)	A3	
91-20-3		

Component	IARC
Naphthalene (constituent)	Group 2B
91-20-3	

Component	NTP
Naphthalene (constituent)	Reasonably Anticipated
91-20-3	

Component	OSHA
Naphthalene (constituent)	X
91-20-3	

# Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 0 % of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 1,797.00 mg/kg

ATEmix (dermal) 11,895.00 mg/kg mg/l

ATEmix (inhalation-dust/mist) 19.50 mg/l ATEmix (inhalation-vapor) 143.00 mg/l

# 12. ECOLOGICAL INFORMATION

# **Ecotoxicity**

Specific test data for the substance or mixture is not available. Toxic to aquatic life with long lasting effects. (based on components).

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Component	Algae/aquatic plants
Butyrolactone	96h EC50 Desmodesmus subspicatus: = 79 mg/L
96-48-0	72h EC50 Desmodesmus subspicatus: = 360 mg/L

Component	Fish
Solvent naphtha, petroleum, heavy aromatic	96h LC50 Pimephales promelas: = 19 mg/L (static)
64742-94-5	96h LC50 Oncorhynchus mykiss: = 2.34 mg/L
	96h LC50 Lepomis macrochirus: = 1740 mg/L (static)
	96h LC50 Pimephales promelas: = 45 mg/L (flow-through)
	96h LC50 Pimephales promelas: = 41 mg/L
2-Butoxyethanol	96h LC50 Lepomis macrochirus: = 2950 mg/L
111-76-2	96h LC50 Lepomis macrochirus: = 1490 mg/L (static)
Naphthalene (constituent)	96h LC50 Pimephales promelas: 5.74 - 6.44 mg/L (flow-through)
91-20-3	96h LC50 Pimephales promelas: = 1.99 mg/L (static)
	96h LC50 Lepomis macrochirus: = 31.0265 mg/L (static)
	96h LC50 Oncorhynchus mykiss: = 1.6 mg/L (flow-through)
	96h LC50 Oncorhynchus mykiss: 0.91 - 2.82 mg/L (static)

1,2,4-Trimethylbenzene (constituent)	96h LC50 Pimephales promelas: 7.19 - 8.28 mg/L (flow-through)
95-63-6	

Component	Crustacea
Solvent naphtha, petroleum, heavy aromatic	48h EC50 Daphnia magna: = 0.95 mg/L
64742-94-5	
Butyrolactone	48h EC50 Daphnia magna Straus: > 500 mg/L
96-48-0	
2-Butoxyethanol	48h EC50 Daphnia magna: > 1000 mg/L
111-76-2	
Naphthalene (constituent)	48h EC50 Daphnia magna: 1.09 - 3.4 mg/L Static
91-20-3	48h EC50 Daphnia magna: = 1.96 mg/L Flow through
	48h LC50 Daphnia magna: = 2.16 mg/L
1,2,4-Trimethylbenzene (constituent)	48h EC50 Daphnia magna: = 6.14 mg/L
95-63-6	

# Persistence and Degradability

No information available.

#### **Bioaccumulation**

No information available

Component	Partition coefficient	
Solvent naphtha, petroleum, heavy aromatic 64742-94-5	2.9 - 6.1	
Butyrolactone 96-48-0	-0.566	
2-Butoxyethanol 111-76-2	0.81	
Naphthalene (constituent) 91-20-3	3.6	
1,2,4-Trimethylbenzene (constituent) 95-63-6	3.63	

# Other adverse effects

No information available

# 13. DISPOSAL CONSIDERATIONS

# Waste treatment methods

Waste Disposal Methods Contain and dispose of waste according to local regulations.

Contaminated Packaging Empty containers should be taken to an approved waste handling site for recycling or

disposal.

# 14. TRANSPORT INFORMATION

Note: This information is not intended to convey all specific transportation requirements relating to

this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation information can be found in the specific regulations for your mode of transportation. It is the responsibility of the transporting organization to follow all applicable laws, regulations and

rules relating to the transportation of the material.

**DOT** In the U.S. and Canada, this material may be reclassified as a combustible liquid and is not

regulated, via surface transportation, in containers less than 119 gallons or 450 liters [per 49 CFR 173.150 (f)] [per Transportation of Dangerous Goods Regulations/Clear Language

Part 1.33].

UN/ID no. UN1210 Proper Shipping Name Printing Ink

Hazard Class 3
Packing Group

# ICAO / IATA / IMDG / IMO

UN/ID no. UN1210
Proper Shipping Name Printing Ink

Hazard Class 3
Packing Group III

# 15. REGULATORY INFORMATION

# **International Inventories**

All components are listed on the TSCA Inventory. For further information, please contact:. Supplier (manufacturer/importer/downstream user/distributor).

# U.S. Federal Regulations

# **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Component	CAS-No	Weight %	SARA 313 - Threshold Values
2-Butoxyethanol	111-76-2	5 - 10	1.0
Naphthalene (constituent)	91-20-3	1 - 5	0.1
Ethylene glycol monopropyl ether	2807-30-9	1 - 5	1.0

# Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following substances which are listed hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act:.

Component	CAS-No	Weight %
Naphthalene (constituent)	91-20-3	1 - 5
Ethylene glycol monopropyl ether	2807-30-9	1 - 5
Xylenes (o-, m-, p- isomers)	1330-20-7	< 0.5

# U.S. State Regulations

	Massachusetts Right To Know
2-Butoxyethanol	X
111-76-2	
Naphthalene (constituent)	X
91-20-3	
1,2,4-Trimethylbenzene (constituent)	X
95-63-6	

Component	Minnesota Right To Know
2-Butoxyethanol 111-76-2	X
Naphthalene (constituent) 91-20-3	Х
1,2,4-Trimethylbenzene (constituent) 95-63-6	Х

Component	New Jersey
	Right To Know
2-Butoxyethanol	X
111-76-2	
Naphthalene (constituent)	X
91-20-3	
Ethylene glycol monopropyl ether	X
2807-30-9	
1,2,4-Trimethylbenzene (constituent)	X

·

95-63-6

Component	Pennsylvania Right To Know
2-Butoxyethanol	X
111-76-2	
Naphthalene (constituent)	X
91-20-3	
Ethylene glycol monopropyl ether	Х
2807-30-9	
1,2,4-Trimethylbenzene (constituent)	Х
95-63-6	

### California Prop. 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm

Component	California Prop. 65
Naphthalene (constituent)	Carcinogen

# Canada

Component	NPRI - National Pollutant Release Inventory
Solvent naphtha, petroleum, heavy aromatic 64742-94-5	Part 5, Other Groups and Mixtures; Part 4 Substance
Butyrolactone 96-48-0	Part 4 Substance
2-Butoxyethanol 111-76-2	Part 5, Individual Substances; Part 4 Substance
Naphthalene (constituent) 91-20-3	Part 1, Group A Substance; Part 4 Substance
Ethylene glycol monopropyl ether 2807-30-9	Part 5, Other Groups and Mixtures; Part 4 Substance
1,2,4-Trimethylbenzene (constituent) 95-63-6	Part 5, Individual Substances; Part 4 Substance

# 16. OTHER INFORMATION

HMIS: Health Flammability Reactivity Personal Protection 3 \* 2 0 X

# Key or legend to abbreviations and acronyms used in the safety data sheet

# Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average)
STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value

# ACGIH: (American Conference of Governmental Industrial Hygienists)

A1 - Known Human Carcinogen A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans Group 2B - Possibly Carcinogenic to Humans

NTP: (National Toxicity Program) Known - Known Carcinogen

Reasonably Anticipated to be a Human Carcinogen
OSHA: (Occupational Safety & Health Administration)

X - Present

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# Pursuant to NOM-018-STPS-2015

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This information within is considered correct but is not exhaustive and will be used for guidance only, which is based on the current knowledge of the substance or mixture and is applicable to the appropriate safety precautions for the product.

#### Disclaimer

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.

**End of Safety Data Sheet**