43201-1002

NAZDAR INK TECHNOLOGIES

SAFETY DATA SHEET

Published Date Nov-13-2023 Revision Date Nov-13-2023 Revision Number 2.7

1. IDENTIFICATION

Product identifier Product code Product name Product category

59135 Gloss Coating Varnish 59000 Series SV Enamel Screen Ink

Other means of identification Synonyms

 Recommended use of the chemical and restrictions on use

 Recommended use
 Industrial Printing Operations

None

Details of the supplier of the safety data sheetUNITED STATESUNITED KINGDOMNazdar CompanyNazdar Limited8501 Hedge Lane TerraceBarton RoadShawnee, KS 66227Heaton MerseyTel: +001-913-422-1888Stockport, England SK4 3EGTel: +001-800-677-4657Tel: +44 161 442 2111Fax: +001-913-422-2294www.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

Serious eye damage/eye irritation	Category 2 - (H319)
Skin sensitization	Category 1 - (H317)
Carcinogenicity	Category 1B - (H350)
Specific target organ toxicity (single exposure)	Category 2 - (H371)
Specific target organ toxicity (repeated exposure)	Category 1 - (H372)
Aspiration hazard	Category 1 - (H304)
Flammable liquids	Category 3 - (H226)

Label elements



Hazard statements H226 - Flammable liquid and vapor

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H304 - May be fatal if swallowed and enters airways

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H350 - May cause cancer

H371 - May cause damage to organs

H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary Statements

P201 - Obtain special instructions before use

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

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

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

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor

P331 - Do NOT induce vomiting

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

Hazards not otherwise classified (HNOC) Causes mild skin irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical name	CAS No.	Weight-%	Trade	Note
			secret	
Stoddard solvent	8052-41-3	30 - 60	*	
Naphtha, petroleum, hydrotreated heavy	64742-48-9	5 - 10	*	
Xylenes (o-, m-, p- isomers)	1330-20-7	1 - 5	*	
2-Butanone, oxime	96-29-7	1 - 5	*	
Ethyl benzene (constituent)	100-41-4	0.1 - < 1	*	1
Cobalt Compounds	Not Available	0.1 - < 1	*	

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Note

1. Hazardous Constituent contained in Complex Substance(s) required for disclosure

4. FIRST-AID MEASURES

Description of first aid measures

General Advice Eye Contact	Show this safety data sheet to the doctor in attendance. 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.
Inhalation	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

Chemical name	ACGIH TLV
Stoddard solvent	TWA: 100 ppm
8052-41-3	
Xylenes (o-, m-, p- isomers)	TWA: 20 ppm
1330-20-7	
Ethyl benzene (constituent)	TWA: 20 ppm

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100-41-4	
Chemical name	OSHA PEL
Stoddard solvent	TWA: 500 ppm
8052-41-3	TWA: 2900 mg/m ³
Xylenes (o-, m-, p- isomers)	TWA: 100 ppm
1330-20-7	TWA: 435 mg/m ³
Ethyl benzene (constituent)	TWA: 100 ppm
100-41-4	TWA: 435 mg/m ³
Chemical name	OSHA PEL (vacated)
Stoddard solvent	TWA: 100 ppm
8052-41-3	TWA: 525 mg/m ³
Xylenes (o-, m-, p- isomers)	TWA: 100 ppm
1330-20-7	TWA: 435 mg/m ³
	STEL: 150 ppm
	STEL: 655 mg/m ³
Ethyl benzene (constituent)	TWA: 100 ppm
100-41-4	TWA: 435 mg/m ³
	STEL: 125 ppm
	STEL: 545 mg/m ³

Chemical name	Ontario TWAEV
	TWA: 525 mg/m ³
8052-41-3	
Xylenes (o-, m-, p- isomers)	TWA: 100 ppm
1330-20-7	STEL: 150 ppm
Ethyl benzene (constituent)	TWA: 20 ppm
100-41-4	

Chemical name	Mexico OEL (TWA)	
Stoddard solvent 8052-41-3	TWA/VLE-PPT: 100 ppm	
Xylenes (o-, m-, p- isomers)	TWA/VLE-PPT: 100 ppm	
1330-20-7	STEL/PPT-CT: 150 ppm	
Ethyl benzene (constituent)	TWA/VLE-PPT: 20 ppm	
100-41-4		

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.

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	Replace gloves immediately w dimension, color, flexibility.	hen torn or any change in appea	arance is noticed such as
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 the material.		
General Hygiene Consideratio	ons Handle in accordance with goo eating, drinking or smoking. W eyes, skin and clothing. Wear equipment, work area and clot	ash contaminated clothing befor suitable gloves and eye/face pro	e reuse. Avoid contact with
	9. PHYSICAL AND CHEM	ICAL PROPERTIES	
nformation on basic physical and			
Physical state Odor	Liquid Characteristic	Appearance Odor Threshold	Colored No information available
Property	Values	Remarks • Method	
bH Melting Point / Freezing Point Boiling Point / Boiling Range	No information available > 149 °C / 300 °F	No data available No data available	
Flash Point Evaporation rate	46 °C / 115 °F	Setaflash closed cup No data available	
Flammability Limit in Air Upper flammability limit Lower flammability limit		No data available No data available No data available	
Vapor Pressure Vapor Density Specific Gravity	0.93	No data available	
Water Solubility Solubility in other solvents Partition coefficient: n-octanol/wa	iter	No data available No data available No data available	
Autoignition Temperature Hyphen Kinematic viscosity Dynamic viscosity	No information available	No data available No data available No data available No data available No data available	
Explosive Properties Oxidizing Properties	No data available No data available		
Other information			
Photochemically Reactive Neight Per Gallon (Ibs/gal)	No 7.72		
VOC by weight % (less water) 44.42	VOC by volume % (less water) 45.25	VOC lbs/gal (less water) 3.43	VOC grams/liter (less water) 411.4
	10. STABILITY AND	REACTIVITY	

<u>Chemical stability</u> Stable under normal conditions.

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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.

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

Inhalation	Specific test data for the substance or mixture is not available.
Eye Contact	Specific test data for the substance or mixture is not available.
Skin Contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

Chemical name	Oral LD50	
Naphtha, petroleum, hydrotreated heavy 64742-48-9	> 6000 mg/kg (Rat)	
Xylenes (o-, m-, p- isomers) 1330-20-7	= 3500 mg/kg (Rat)	
2-Butanone, oxime 96-29-7	= 930 mg/kg (Rat)	
Ethyl benzene (constituent) 100-41-4	= 3500 mg/kg (Rat)	
Chemical name	Dermal LD50	
Stoddard solvent 8052-41-3	> 3000 mg/kg (Rabbit)	
Naphtha, petroleum, hydrotreated heavy 64742-48-9	> 5000 mg/kg (Rabbit)	
Xylenes (o-, m-, p- isomers) 1330-20-7	> 4350 mg/kg (Rabbit)	
2-Butanone, oxime 96-29-7	1000 - 1800 mg/kg (Rabbit)	
Ethyl benzene (constituent) 100-41-4	= 15400 mg/kg (Rabbit)	
Cobalt Compounds	> 5000 mg/kg (Rabbit)	
Chemical name	Inhalation LC50	
Stoddard solvent 8052-41-3	> 5.5 mg/L (Rat)4 h	
Naphtha, petroleum, hydrotreated heavy 64742-48-9	> 8500 mg/m³ (Rat)4 h	
Xylenes (o-, m-, p- isomers) 1330-20-7	= 29.08 mg/L (Rat)4 h	
2-Butanone, oxime 96-29-7	> 4.83 mg/L (Rat)4 h	
Ethyl benzene (constituent) 100-41-4	= 17.4 mg/L (Rat)4 h	
Cobalt Compounds	> 10 mg/L (Rat)1 h	

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms

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

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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 irritation.		
Irritation	(based on components).		
	Specific test data for the substance or mixture is not available.		
Corrosivity	Specific test data for the substance or mixture is not available.		
Sensitization	Specific test data for the substance or mixture is not available. May cause an allergic skin reaction. (based on components).		
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. May cause cancer. (based on components).		
Reproductive Effects	Specific test data for the substance or mixture is not available.		
STOT - single exposure	Specific test data for the substance or mixture is not available. May cause damage to		
	organs. (based on components).		
STOT - repeated exposure	Specific test data for the substance or mixture is not available. Causes damage to organs through prolonged or repeated exposure. (based on components).		
Chronic Toxicity	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.		
Chemical name	ACGIH		
Ethyl benzene (constituent)	A3		
100-41-4			
Chemical name	IARC		
Ethyl benzene (constituent)	Group 2B		
Cobalt Compounds	Group 2B		

Chemical name	OSHA
Ethyl benzene (constituent)	X
100-41-4	

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)	9,009.00 mg/kg
ATEmix (dermal)	37,952.00 mg/kg
ATEmix (inhalation-gas)	99,999.00
ATEmix (inhalation-dust/mist)	83.90 mg/l
ATEmix (inhalation-vapor)	615.10 mg/l

12. ECOLOGICAL INFORMATION

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

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

Chemical name	Algae/aquatic plants
2-Butanone, oxime	72h EC50 Desmodesmus subspicatus: = 83 mg/L
96-29-7	
Ethyl benzene (constituent)	72h EC50 Pseudokirchneriella subcapitata: = 4.6 mg/L
100-41-4	96h EC50 Pseudokirchneriella subcapitata: > 438 mg/L

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	72h EC50 Pseudokirchneriella subcapitata: 2.6 - 11.3 mg/L static 96h EC50 Pseudokirchneriella subcapitata: 1.7 - 7.6 mg/L static
Chemical name	Fish
Naphtha, petroleum, hydrotreated heavy 64742-48-9	96h LC50 Pimephales promelas: = 2200 mg/L
Xylenes (o-, m-, p- isomers) 1330-20-7	 96h LC50 Pimephales promelas: = 13.4 mg/L (flow-through) 96h LC50 Oncorhynchus mykiss: 2.661 - 4.093 mg/L (static) 96h LC50 Oncorhynchus mykiss: 13.5 - 17.3 mg/L 96h LC50 Poecilia reticulata: 30.26 - 40.75 mg/L (static) 96h LC50 Lepomis macrochirus: 13.1 - 16.5 mg/L (flow-through) 96h LC50 Lepomis macrochirus: 7.711 - 9.591 mg/L (static) 96h LC50 Pimephales promelas: 23.53 - 29.97 mg/L (static) 96h LC50 Cyprinus carpio: = 780 mg/L (semi-static) 96h LC50 Cyprinus carpio: > 780 mg/L
2-Butanone, oxime 96-29-7	96h LC50 Pimephales promelas: 777 - 914 mg/L (flow-through) 96h LC50 Poecilia reticulata: = 760 mg/L (static)
Ethyl benzene (constituent) 100-41-4	96h LC50 Oncorhynchus mykiss: 11.0 - 18.00 mg/L (static) 96h LC50 Oncorhynchus mykiss: = 4.2 mg/L (semi-static) 96h LC50 Pimephales promelas: 7.55 - 11 mg/L (flow-through) 96h LC50 Lepomis macrochirus: = 32 mg/L (static) 96h LC50 Pimephales promelas: 9.1 - 15.6 mg/L (static) 96h LC50 Poecilia reticulata: = 9.6 mg/L (static)
Chemical name	Crustacea

	Clustacea
Xylenes (o-, m-, p- isomers)	48h EC50 water flea: = 3.82 mg/L
1330-20-7	48h LC50 Gammarus lacustris: = 0.6 mg/L
2-Butanone, oxime 96-29-7	48h EC50 Daphnia magna: = 750 mg/L
Ethyl benzene (constituent)	48h EC50 Daphnia magna: 1.8 - 2.4 mg/L
100-41-4	

Persistence and Degradability

No information available.

Bioaccumulation

Chemical name	Partition coefficient
Xylenes (o-, m-, p- isomers) 1330-20-7	2.77 - 3.15
2-Butanone, oxime 96-29-7	0.65
Ethyl benzene (constituent) 100-41-4	3.2

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

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	responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.
DOT UN/ID no Proper Shipping Name Transport hazard class(es) Packing Group	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]. UN1210 Printing Ink 3 III
ICAO / IATA / IMDG / IMO UN/ID no Proper Shipping Name Transport hazard class(es) Packing Group	UN1210 Printing Ink 3 III

15. REGULATORY INFORMATION

International Inventories

All substances are listed as ACTIVE 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			
or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.			
Chemical name	CAS No.	Weight-%	SARA 313 - Threshold
		_	Values %
Xylenes (o-, m-, p- isomers)	1330-20-7	1 - 5	1.0
Ethyl benzene (constituent)	100-41-4	0.1 - < 1	0.1

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:

Chemical name	CAS No.	Weight-%
Xylenes (o-, m-, p- isomers)	1330-20-7	1 - 5
Ethyl benzene (constituent)	100-41-4	0.1 - < 1
Cobalt Compounds	Not Available	0.1 - < 1

US State Regulations

Chemical name	Massachusetts	
Stoddard solvent 8052-41-3	×	
Xylenes (o-, m-, p- isomers) 1330-20-7	×	
Ethyl benzene (constituent) 100-41-4	x	
Chemical name	Minnesota Right To Know	
Stoddard solvent 8052-41-3	x	
Xylenes (o-, m-, p- isomers) 1330-20-7	X	
1330-20-7		

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96-29-7		
Ethyl benzene (constituent)	×	
100-41-4		
Chemical name	New Jersey	
Stoddard solvent 8052-41-3	X	
Xylenes (o-, m-, p- isomers) 1330-20-7	X	
Ethyl benzene (constituent) 100-41-4	X	
Cobalt Compounds	X	
Chemical name	Pennsylvania	
Stoddard solvent	X	
8052-41-3	v	
Xylenes (o-, m-, p- isomers) 1330-20-7	^	
Ethyl benzene (constituent)	x	
100-41-4	^	
Cobalt Compounds	x	

California Proposition 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

Chemical name	California Proposition 65
Ethyl benzene (constituent)	Carcinogen

Canada

Chemical name	NPRI - National Pollutant Release Inventory
Stoddard solvent	Part 5 Substance - Volatile Organic Compounds with Additional
8052-41-3	Reporting Requirements
Naphtha, petroleum, hydrotreated heavy	Part 5 Substance - Volatile Organic Compounds with Additional
64742-48-9	Reporting Requirements
Xylenes (o-, m-, p- isomers)	Part 1, Group A Substance
1330-20-7	Part 5 Substance - Volatile Organic Compounds with Additional
	Reporting Requirements
	Part 4 Substance - Criteria Air Contaminants
Ethyl benzene (constituent)	Part 1, Group A Substance
100-41-4	Part 4 Substance - Criteria Air Contaminants
Cobalt Compounds	Part 1, Group B Substance

16. OTHER INFORMATION

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

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA STEL Ceiling

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

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Group 2B - Possibly Carcinogenic to Humans Group 23 - Not Classifiable as to Carcinogenicity in 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 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