

# SAFETY DATA SHEET

Issue Date 28-May-2021 Revision Date 08-Feb-2023 V

Version 11.3

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1. IDENTIFICATION			
<u>Product identifier</u> Product Name	DPD Free Chlorine Reagent		
Other means of identification Product Code(s)	2105569		
Safety data sheet number	M00109		
HMRIC #	HMIRA Registry Number 9935 Filed 2021-03-29		
Recommended use of the chemica Recommended Use Uses advised against Restrictions on use	<u>Il and restrictions on use</u> Water Analysis. Determination of chlorine. Consumer use. Please refer to the product labeling and packaging for information about appropriate use.		

Details of the supplier of the safety data sheet

#### Manufacturer Address

Hach Company, P.O.Box 389, Loveland, CO 80539, USA, +1(970) 669-3050

# Emergency telephone number

+1(303) 623-5716 - 24 Hour Service

2. HAZARDS IDENTIFICATION

#### **Classification**

#### **Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (repeated exposure)	Category 2

# Hazards not otherwise classified (HNOC)

Not applicable

# Label elements

Signal word Warning

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# Hazard statements

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H373 - May cause damage to organs through prolonged or repeated exposure

# Precautionary statements

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P332 + P313 - If skin irritation occurs: Get medical attention

P362 - Take off contaminated clothing and wash before reuse

P280 - Wear protective gloves, protective clothing, eye protection, and face protection

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

P337 + P313 - If eye irritation persists: Get medical attention

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

P314 - Get medical advice/attention if you feel unwell

P501 - Dispose of contents/ container to an approved waste disposal plant

# Other Hazards Known

None

# **3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance

Not applicable

<u>Mixture</u>

Chemical Family Chemical nature Mixture. No information available.

#### Percent ranges are used where confidential product information is applicable.

Chemical name	CAS No	Percent Range	HMRIC #
Carboxylate Salt	-	60 - 70%	-
Phosphoric acid, disodium salt	7558-79-4	30 - 40%	-
Salt of N,N-Diethyl-p-Phenylenediamine	-	1 - 5%	-
Disodium EDTA	139-33-3	1 - 5%	-

# 4. FIRST AID MEASURES

# Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance.
Inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Do not rub affected area.

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Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.			
Ingestion	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.			
Self-protection of the first aider	Avoid contact with skin, eyes or clothing.			
Most important symptoms and effe	cts, both acute and delayed			
Symptoms	Burning sensation.			
Indication of any immediate medica	al attention and special treatment needed			
Note to physicians	Treat symptomatically.			

# 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media	Caution: Use of water spray when fighting fire may be inefficient.
Specific hazards arising from the chemical	No information available.
Hazardous combustion products	Carbon monoxide, Carbon dioxide. Phosphorus oxides. Nitrogen oxides.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

# 6. ACCIDENTAL RELEASE MEASURES

U.S. Notice	Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outsid of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.	
Personal precautions, protective ed	quipment and emergency procedures	
Personal precautions	Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing.	
Other Information	Refer to protective measures listed in Sections 7 and 8.	
Environmental precautions		
Environmental precautions	Prevent further leakage or spillage if safe to do so.	
Methods and material for containm	ent and cleaning up	
Methods for containment	Prevent further leakage or spillage if safe to do so.	
Methods for cleaning up	Take up mechanically, placing in appropriate containers for disposal.	
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.	

Reference to other sections See section 8 for more information. See section 13 for more information.

7. HANDLING AND STORAGE		
Precautions for safe handling		
Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.	
Conditions for safe storage, includ	ing any incompatibilities	
Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.	
Flammability class	Not applicable	

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters	
Exposure Guidelines	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies
Appropriate engineering controls Engineering Controls	Showers Eyewash stations Ventilation systems. Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.
Individual protection measures, su	ch as personal protective equipment
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
Hand Protection	Wear suitable gloves. Impervious gloves. Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and the standard EN 374 derived from it. Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374-1:2016. Barrier creams may help to protect the exposed areas of skin.
Eye/face protection	If splashes are likely to occur, wear safety glasses with side-shields.
Skin and body protection	Wear suitable protective clothing. Long sleeved clothing. Avoid contact with eyes, skin and clothing. Wash contaminated clothing before reuse.
General Hygiene Considerations	Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing.
Environmental exposure controls	Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water.
Thermal hazards	None under normal processing.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Solid

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Appearance	powder		Color	White to light pink White to brown	
Odor	Odorless		Odor threshold	No data available	
Property_		Values		Remarks • Method	
Molecular weigh	t	No data availa	ble		
рН		6.35		1% @ 20°C	
Melting point / fr	eezing point	110 °C / 23	0°F		
Initial boiling poi	int and boiling range	No data availa	ble		
Evaporation rate		Not applicable			
Vapor pressure		Not applicable			
Relative vapor d	ensity	No data availa	able		
Specific Gravity		1.76			
Partition coeffici	ent	log K <sub>ow</sub> ~ 0			
Soil Organic Car Coefficient	bon-Water Partition	log K <sub>oc</sub> ~ 0			
Autoignition tem	perature	No data availa	ble		
Decomposition t	emperature	110 °C / 230	)°F		
Dynamic viscosi	ty	Not applicable			
Kinematic viscos	sity	Not applicable			

Solubility(ies)

# Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Completely soluble	> 10000 mg/L	25 °C / 77 °F

# Solubility in other solvents

Chemical Name	Solubility classification	<u>Solubility</u>	Solubility Temperature
Acid	Soluble	> 1000 mg/L	25 °C / 77 °F

# **Other information**

# **Metal Corrosivity**

Steel Corrosion Rate Aluminum Corrosion Rate No data available No data available

#### Volatile Organic Compounds (VOC) Content Not applicable

Chemical name	CAS No Volatile organic compoun (VOC) content		CAA (Clean Air Act)
Carboxylate Salt	-	No data available	-
Phosphoric acid, disodium salt	7558-79-4	No data available	-
Salt of N,N-Diethyl-p-Phenylenediamine	-	Not applicable	-

Chemical name	CAS No	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Disodium EDTA	139-33-3	No data available	-

#### **Explosive properties**

Upper explosion limit Lower explosion limit	No data available No data available
Flammable properties	
Flash point	Not applicable
Flammability Limit in Air Upper flammability limit: Lower flammability limit:	No data available No data available
Oxidizing properties	No data available.
Bulk density	No data available

# **10. STABILITY AND REACTIVITY**

# Reactivity

Not applicable.

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

#### **Explosion data**

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

#### Possibility of hazardous reactions

None under normal processing.

# Hazardous polymerization

None under normal processing.

#### Conditions to avoid

None known based on information supplied.

# Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

### Hazardous decomposition products

Carbon dioxide. Carbon monoxide. Phosphorus oxides. Nitrogen oxides.

# **11. TOXICOLOGICAL INFORMATION**

# Information on likely routes of exposure

Product I	nformation
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Inhalation	May cause irritation of respiratory tract.
Eye contact	Irritating to eyes. Causes serious eye irritation.

<b>•••</b>	
Skin	contact

Causes skin irritation.

Ingestion	Ingestion may cause	gastrointestinal irritation	, nausea, vomitir	ng and diarrhea.

Redness. May cause redness and tearing of the eyes.

# Symptoms

#### Acute toxicity

Based on available data, the classification criteria are not met

#### Mixture

No data available.

#### **Ingredient Acute Toxicity Data**

Test data reported below.

# **Oral Exposure Route**

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Salt of N,N-Diethyl-p-Phenyl enediamine (1 - 5%) CAS#: -	Rat LD₅o	695 mg/kg	None reported	None reported	Outside testing
Disodium EDTA (1 - 5%) CAS#: 139-33-3	Rat LD <sub>50</sub>	2000 mg/kg	None reported	None reported	RTECS

# Inhalation (Dust/Mist) Exposure Route

# **Unknown Acute Toxicity**

0% of the mixture consists of ingredient(s) of unknown toxicity.

# Acute Toxicity Estimations (ATE)

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

ATEmix (oral)	21,786.80 mg/kg
ATEmix (dermal)	No information available
ATEmix (inhalation-dust/mist)	136.40 mg/l
ATEmix (inhalation-vapor)	No information available
ATEmix (inhalation-gas)	No information available

#### Skin corrosion/irritation

Classification based on data available for ingredients. Irritating to skin.

#### Mixture

No data available.

# Ingredient Skin Corrosion/Irritation Data

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Phosphoric acid, disodium salt (30 - 40%)	Standard Draize Test	Rabbit	500 mg	24 hours	Skin irritant	RTECS

CAS#: 7558-79-4						
Disodium EDTA (1 - 5%) CAS#: 139-33-3	Standard Draize Test	Rabbit	500 mg	20 hours	Not corrosive or irritating to skin	ECHA

#### Serious eye damage/irritation

Classification based on data available for ingredients. Irritating to eyes.

# Mixture

No data available.

# Ingredient Eye Damage/Eye Irritation Data

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Phosphoric acid, disodium salt (30 - 40%) CAS#: 7558-79-4	Standard Draize Test	Rabbit	500 mg	24 hours	Eye irritant	RTECS
Disodium EDTA (1 - 5%) CAS#: 139-33-3	Standard Draize Test	Rabbit	50 mg	None reported	Mild eye irritant	ECHA

#### Respiratory or skin sensitization

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

#### Mixture

No data available.

#### Ingredient Sensitization Data

No data available.

#### STOT - single exposure

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

#### Mixture

No data available.

# Ingredient Specific Target Organ Toxicity Single Exposure Data

No data available.

# STOT - repeated exposure

May cause damage to organs.

#### Mixture

No data available.

# Ingredient Specific Target Organ Toxicity Repeat Exposure Data

No data available.

#### **Carcinogenicity**

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

#### Mixture

No data available.

# Ingredient Carcinogenicity Data

No data available.

Chemical name	CAS No	ACGIH	IARC	NTP	OSHA	
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Carboxylate Salt	-	-	-	-	-
Phosphoric acid, disodium	7558-79-4	-	-	-	-
salt					
Salt of	-	-	-	-	-
N,N-Diethyl-p-Phenylenedi					
amine					
Disodium EDTA	139-33-3	-	-	-	-

# Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	Does not apply
IARC (International Agency for Research on Cancer)	Does not apply
NTP (National Toxicology Program)	Does not apply
OSHA	Does not apply

# Germ cell mutagenicity

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

#### Mixture invitro Data No data available.

# Substance invitro Data

Test data reported below.

Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Disodium EDTA (1 - 5%) CAS#: 139-33-3	Cytogenetic analysis	Hamster lung	200 mg/L	None reported	Positive test result for mutagenicity	RTECS

# Mixture invivo Data

No data available.

# Substance invivo Data

No data available.

#### Reproductive toxicity

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

# Mixture

No data available.

# Ingredient Reproductive Toxicity Data

No data available.

# Aspiration hazard

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

# **12. ECOLOGICAL INFORMATION**

Ecotoxicity	Based on available data, the classification criteria are not met.
Unknown aquatic toxicity	0% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

# Mixture

**Aquatic Acute Toxicity** No data available.

# Aquatic Chronic Toxicity

No data available.

# **Substance**

# Aquatic Acute Toxicity

Test data reported below.

Fish

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Disodium EDTA (1 - 5%) CAS#: 139-33-3	96 hours	Lepomis macrochirus	LC50	159 mg/L	Vendor SDS

# Crustacea

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Salt of N,N-Diethyl-p-Phenyl enediamine (1 - 5%) CAS#: -	48 Hours	Daphina magna	EC50	10.8 mg/L	Internal Data

# Algae

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Disodium EDTA (1 - 5%) CAS#: 139-33-3	72 Hours	None reported	EC50	300 mg/L	ECHA

# Aquatic Chronic Toxicity

No data available.

# Persistence and degradability

# Mixture

No data available.

Bioaccumulation MATERIAL DOES NOT BIOACCUMULATE **Mixture** No data available.

# **Partition coefficient**

Mobility

# Soil Organic Carbon-Water Partition Coefficient

Other adverse effects

No information available

# **13. DISPOSAL CONSIDERATIONS**

log Kow ~ 0

log Koc ~ 0

# Waste treatment methods

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 Waste from residues/unused products
 Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

 Contaminated packaging
 Do not reuse empty containers.

 US EPA Waste Number
 Not applicable

# **14. TRANSPORT INFORMATION**

DOT	Not regulated
TDG	Not regulated
IATA	Not regulated
IMDG	Not regulated
Note:	No special precautions necessary.

# Additional information

# **15. REGULATORY INFORMATION**

National Inventories	
TSCA	Complies
DSL/NDSL	Complies

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory **DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

International Inventories	
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL - Existing substances	Complies
PICCS	Complies
TCSI	Complies
AICS	Complies
NZIoC	Complies

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

TCSI - Taiwan Chemical Substances Inventory

AICS - Australian Inventory of Chemical Substances

NZIOC - New Zealand Inventory of Chemicals

#### **US Federal Regulations**

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Yes

SARA 311/312 Hazard	Categories

Acute health hazard

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Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

#### CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Phosphoric acid, disodium	5000 lb	-	-	Х
salt 7558-79-4				

# **CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Phosphoric acid, disodium salt	5000 lb	-	RQ 5000 lb final RQ
7558-79-4			RQ 2270 kg final RQ

# US State Regulations

#### California Proposition 65

This product does not contain any Proposition 65 chemicals

#### **IMERC:** Not applicable

New Jersey Trade Secret Registry Number 80100131-5001 (Carboxylate Salt) New Jersey Trade Secret Registry Number 80100131-5002 (DPD Salt) New York Trade Secret Registry Number 478 (DPD Salt) New York Trade Secret Registry Number 479 (Carboxylate Salt) This product complies with Pennsylvania Trade Secret Regulations. This product is registered as a trade secret in the state of Illinois. This product is registered as a trade secret in the state of Massachusetts. This product is registered as a trade secret in the state of New York.

# U.S. State Right-to-Know Regulations

This product may contain substances regulated by state right-to-know regulations.

Chemical name	New Jersey	Massachusetts	Pennsylvania
Phosphoric acid, disodium salt	Х	Х	Х
7558-79-4			

# U.S. EPA Label Information

Chemical name	FIFRA	FDA
Phosphoric acid, disodium salt	180.0910	21 CFR 182.1778,21 CFR 182.6290,21 CFR 182.6778,21 CFR 182.8778
Disodium EDTA	180.0940	-

# **16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

Special Comments

None

# Additional information

Global Automotive Declarable Substance List (GADSL) Not applicable NFPA and HMIS Classifications

NFPA	Health hazards - 2	Flammability - 0	Instability - 0	Physical and chemical properties -
HMIS	Health hazards - 2 - *	Flammability - 0	Physical hazards - 0	Personal protection - X

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

ACGIH ATSDR CCRIS CDC CEPA CICAD ECHA EEA EPA ERMA ECOSARS FDA GESTIS	ACGIH (American Conference of Governmental Industrial Hygienists) ATSDR (Agency for Toxic Substances and Disease Registry) CCRIS (Chemical Carcinogenesis Research Information System) CDC (Center for Disease Control) CEPA (Canadian Environmental Protection Agency) CICAD (Concise International Chemical Assessment Documents) ECHA (The European Chemicals Agency) EEA (European Environment Agency) EPA (Environmental Protection Agency) ERMA (New Zealands Environmental Risk Management Authority) Estimation through ECOSARS v1.11 part of the Estimation Programs Interface (EPI) Suite <sup>™</sup> FDA (Food & Drug Administration) GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance) HSDB (Hazardous Substances Data Bank)
	INERIS (The National Industrial Environment and Risks Institute)
IPCS INCHEM IUCLID	IPCS INCHEM (International Programme on Chemical Safety) IUCLID (The International Uniform Chemical Information Database)
NITE	Japan National Institute of Technology and Evaluation (NITE)
NIH	NIH (National Institutes of Health)
NIOSH	NIOSH (National Institute for Occupational Safety and Health)
LOLI NDF	LOLI (List of Lists - An International Chemical Regulatory Database) no data
NICNAS	Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH IDLH	Immediately Dangerous to Life or Health
OSHA	OSHA (Occupational Safety and Health Administration of the US Department of Labor)
PEEN RTECS	PEEN (Pan European Ecological Network) RTECS (Registry of Toxic Effects of Chemical Substances)
SIDS	SIDS (Screening Information Dataset) for High Volume Chemicals
SYKE	The Finnish Environment Institute (SYKE)
USDA	USDA (United States Department of Agriculture)
USDC	USDC (United States Department of Commerce)
WHO	WHO (World Health Organization)

# Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
MAC	Maximum Allowable Concentration	Ceiling	Ceiling Limit Value
Х	Listed	Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.

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SKN* RSP+ C M	Skin designation Respiratory sensit Carcinogen mutagen	tization	SKN+ ** R	Skin sensitization Hazard Designation Reproductive toxicant
Prepared By		Hach Product Complian	ce Department	
Issue Date		28-May-2021		
<b>Revision Date</b>		08-Feb-2023		
<b>Revision Note</b>		None		

# **Disclaimer**

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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**End of Safety Data Sheet**