

## SAFETY DATA SHEET

Classification according to the regulation OSHA 29 CFR 1910.1200 HCS 2012

Issuing Date 01-Aug-2018

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Revision Number 5

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

#### Product Identifier

Product name Q4310A  
Product code Q4310A

#### Recommended use of the chemical and restrictions on use

Recommendations on Use Industrial use  
Uses advised against No information available

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

Manufacturer Michelman, Inc.  
9080 Shell Road  
Cincinnati, Ohio 45236  
(513)793-7766

#### Emergency Telephone Number

Emergency Telephone CHEMTREC: +1-703-741-5970 (INTERNATIONAL)  
1-800-424-9300 (NORTH AMERICA)

### 2. HAZARDS IDENTIFICATION

#### Classification

#### **OSHA Regulatory Status**

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

Skin sensitization	Category 1B
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Signal word WARNING

Hazard statements May cause an allergic skin reaction

#### **Symbols/Pictograms**



#### **Precautionary Statements - Prevention**

Avoid breathing dust/fume/gas/mist/vapors/spray  
Contaminated work clothing should not be allowed out of the workplace  
Wear protective gloves

#### **Precautionary Statements - Response**

Specific treatment (see supplemental first aid instructions on this label)  
IF ON SKIN: Wash with plenty of soap and water  
If skin irritation or rash occurs: Get medical advice/attention  
Wash contaminated clothing before reuse

**Hazards Not Otherwise Classified (HNOC)**

Not applicable

**OTHER INFORMATION**

Harmful to aquatic life with long lasting effects

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Formulas are confidential and proprietary. Therefore, a percent range is provided for the concentration of each classified component in this mixture.

Chemical name	CAS No.	Weight-%	GHS Classification
Polyethylenimine		4-10	Acute Tox. 4 (H302) Eye Irrit. 2 (H319) Aquatic Chronic 2 (H411) Skin Sens. 1B (H317)

**4. FIRST AID MEASURES**

**FIRST AID MEASURES**

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water. Consult a physician if necessary.
<b>Inhalation</b>	Remove to fresh air. If symptoms persist, call a physician.
<b>Ingestion</b>	Rinse mouth. If symptoms persist, call a physician.

**Most important symptoms and effects, both acute and delayed**

**Most Important Symptoms and Effects** No information available.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Extinguishing media which must not be used for safety reasons**

None.

**Specific hazards arising from the chemical**

No information available.

**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.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Ensure adequate ventilation. Avoid contact with skin and eyes.
<b>Environmental precautions</b>	Do not allow into any sewer, on the ground or into any body of water. Local authorities should be advised if significant spillages cannot be contained.
<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Pick up and transfer to properly labeled containers.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

<b>Handling</b>	Handle in accordance with good industrial hygiene and safety practice. Use personal protective equipment as required.
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### Conditions for safe storage, including any incompatibilities

<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep from freezing.
<b>Incompatible Products</b>	None known based on information supplied.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b><u>Exposure guidelines - U.S.</u></b>	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
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### Appropriate engineering controls

<b>Engineering Measures</b>	Showers Eyewash stations Ventilation systems.
<b>Environmental exposure controls</b>	Local authorities should be advised if significant spillages cannot be contained

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

<b>Eye/Face Protection</b>	Tight sealing safety goggles.
<b>Skin and body protection</b>	Long sleeved clothing. Protective gloves.
<b>Respiratory protection</b>	No special protective equipment required.
<b>Hygiene Measures</b>	When using do not eat, drink or smoke. Take off contaminated clothing and wash before reuse.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical State</b>	liquid
<b>Appearance</b>	translucent
<b>Odor</b>	No information available
<b>Freezing Point</b>	0 °C

<b>Odor Threshold</b>	No information available
<b>Vapor Pressure</b>	No information available
<b>Vapor Density</b>	No information available
<b>pH</b>	~11
<b>Density</b>	No data available
<b>Melting Point / Melting Range</b>	No information available
<b>Boiling Point / Boiling Range</b>	No data available
<b>Flash Point</b>	Not flammable
<b>Evaporation Rate</b>	No data available
<b>Flammability (solid, gas)</b>	No data available
<b>Flammability Limit in Air</b>	
<b>Upper Flammability Limit</b>	No information available
<b>Lower Flammability Limit</b>	No information available
<b>Specific Gravity</b>	1.000
<b>Water Solubility</b>	No data available
<b>Partition Coefficient: n-octanol/water</b>	No information available
<b>Autoignition Temperature</b>	No data available
<b>Decomposition Temperature</b>	No information available
<b>Viscosity</b>	30-35 cps

## 10. STABILITY AND REACTIVITY

### **Chemical stability**

Stable under recommended storage conditions.

### **Possibility of Hazardous Reactions**

None under normal processing.

### **Conditions to avoid**

Do not freeze

### **Incompatible materials**

None known based on information supplied.

### **Hazardous decomposition products**

None known based on information supplied

## 11. TOXICOLOGICAL INFORMATION

### **Information on likely routes of exposure**

<b>Inhalation</b>	Not an expected route of exposure.
<b>Eye contact</b>	No known effect based on information supplied.

**Skin contact** May cause sensitization by skin contact.

**Ingestion** No known effect based on information supplied.

**Acute toxicity**

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Polyethylenimine	500 - 2000 mg/kg (Rat) (OECD 423)	-	-

**Information on toxicological effects**

**Symptoms** None known.

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

**Carcinogenicity** Contains no ingredients above reportable quantities listed as a carcinogen

**Irritation** None known based on information supplied.

**Sensitization** May cause an allergic skin reaction.

**Mutagenic Effects** None known based on information supplied.

**Reproductive toxicity** None known based on information supplied.

**STOT - single exposure** None known based on information supplied

**STOT - repeated exposure** None known based on information supplied.

**Aspiration Hazard** None known based on information supplied.

**Numerical measures of toxicity - Product Information**

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

**ATEmix (oral)** 10000 mg/kg

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

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

Chemical name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Polyethylenimine		LC50 (96h) 7.1 mg/L	EC20 (0.5h) 60 mg/L	EC50 (48h) 8.84 mg/L

**Persistence and degradability** Persistence and degradability is not known based on information supplied.

**Mobility** The mobility of this product has not been determined

**Bioaccumulation** Bioaccumulation potential is not known based on information supplied

**Other adverse effects**

**Endocrine system** This product does not contain any known or suspected endocrine disruptors

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Disposal of wastes** This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise

comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated Packaging**

Dispose of in accordance with local regulations.

**14. TRANSPORT INFORMATION**

<u>DOT</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG</u>	Not regulated

**15. REGULATORY INFORMATION**

International Inventories

TSCA (USA)	Complies
DSL (Canada)	Complies
ENCS (Japan)	Complies
IECSC (China)	Complies
KECL (Korea)	Complies
PICCS (Philippines)	Complies
AICS (Australia)	Complies
ERMA (New Zealand)	Complies
Taiwan	Complies

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.

SARA 311/312 Hazard Categories

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

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) and Volatile Organic Compounds (VOCs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) or volatile organic compounds (VOCs) under Section 112 of the Clean Air Act Amendments of 1990

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

## 16. OTHER INFORMATION

**HMIS**                      **Health hazard** 2                      **Flammability** 0                      **Stability** 0                      **PPE** B

**Prepared by**                      Michelman, Inc.

**Revision date**                      01-Aug-2018

**Reason for revision**                      No information available

### Disclaimer

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