MICHELMAN°

SAFETY DATA SHEET

Classification according to the regulation OSHA 29 CFR 1900.1200 HCS 2012

| Issuing Date 30-Jun-2016 | Revision date 30-Jun-2016 | Revision Number 5 |
|---|---|--------------------------------|
| 1. IDENTIFICATION OF T | HE SUBSTANCE/PREPARATION AN | D OF THE COMPANY/UNDERTAKING |
| <u>Product Identifier</u> Product name Product code | MICHEMCLEAN 1188 MCL1188 | |
| Recommended use of the chem Recommendations on Use Uses advised against | ical and restrictions on use Industrial use No information available | |
| <u>Details of the supplier of the saf</u> Manufacturer | ety data sheet Michelman, Inc. 9080 Shell Road Cincinnati, Ohio 45236 (513)793-7766 | |
| Emergency Telephone Number Emergency Telephone | CHEMTREC: +1-703-741-5970 (INTERN/ 1-800-424-9300 (NORTH AMERICA) | ATIONAL) |
| | 2. HAZARDS IDENTIFICATI | ION |
| Classification | | |
| OSHA Regulatory Status This chemical is considered hazar | dous by the 2012 OSHA Hazard Communication | on Standard (29 CFR 1910.1200) |
| Serious eye damage/eye irritation | | Category 2 |
| Signal Word | WARNING | |

Hazard statements

Causes serious eye irritation

Pictograms



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling Wear eye protection/ face protection

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Hazards Not Otherwise Classified (HNOC)

Not applicable

OTHER INFORMATION

Causes mild skin irritation

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature of the preparation Cleaning solution for Indigo WS6600.

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 |
|-----------------------|----------|----------|--------------------------|
| SODIUM LAURYL SULFATE | 151-21-3 | 1-4 | Acute Tox. 4 (H302) |
| | | | Skin Irrit. 2 (H315) |
| | | | Eye Dam. 1 (H318) |
| | | | Chronic Aquatic 3 (H412) |

4. FIRST AID MEASURES

FIRST AID MEASURES

| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately . |
|--------------|---|
| Skin contact | Wash off immediately with soap and plenty of water. If symptoms persist, call a physician. |
| Inhalation | Move to fresh air. If symptoms persist, call a physician. |
| Ingestion | Rinse mouth. If symptoms persist, call a physician. |

Most important symptoms and effects, both acute and delayed

| Most Important | No information available. |
|------------------|---------------------------|
| Symptoms/Effects | |

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 shall 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

| Personal precautions | Ensure adequate ventilation. Avoid contact with the skin and the eyes. Use personal protective equipment. |
|---------------------------|---|
| Environmental precautions | Do not allow material to contaminate ground water system. |
| Methods for containment | Prevent further leakage or spillage if safe to do so. |
| Methods for cleaning up | Pick up and transfer to properly labeled containers. |
| | |

7. HANDLING AND STORAGE

Precautions for safe handling

| Handling | Handle in accordance with good industrial hygiene and safety practice. Avoid contact with |
|----------|---|
| | skin and eyes. Wear personal protective equipment. |

Conditions for safe storage, including any incompatibilities

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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 Measures | Showers |
|----------------------|----------------------|
| | Eyewash stations |
| | Ventilation systems. |

Individual protection measures, such as personal protective equipment

| Eye/face Protection | Tightly fitting safety goggles. |
|--------------------------|--|
| Skin and body protection | Long sleeved clothing. Protective gloves. |
| Respiratory protection | No special protective equipment required. |
| Hygiene Measures | Handle in accordance with good industrial hygiene and safety practice. |

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

| Physical State | liquid |
|----------------|--------------------------|
| Appearance | clear |
| Odor | No information available |

| Freezing Point | 0°C |
|--|--|
| Odor Threshold | No information available |
| Vapor Pressure | No information available |
| Vapor Density | No information available |
| рН | 8.5-10.5 |
| Density | no data available |
| Melting/Freezing Point | no data available |
| Boiling Point/Boiling Range | No data available |
| Flash Point | Not flammable |
| Evaporation Rate | no data available |
| Flammability (solid, gas) | Not flammable |
| Flammability Limits in Air Upper Flammability Limit Lower Flammability Limit | No information available No information available |
| | |
| Specific Gravity | No information available |
| Specific Gravity Water Solubility | No information available no data available |
| | |
| Water Solubility Partition Coefficient: | no data available |
| Water Solubility Partition Coefficient: n-octanol/water | no data available No information available |

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

Product Information

| Inhalation | Not an expected route of exposure. |
|--------------|--|
| Eye contact | Moderately irritating to the eyes. |
| Skin contact | May cause skin irritation and/or dermatitis. |
| Ingestion | No known effect based on information supplied. |

Acute toxicity

| Com | ponent | Inform | ation |
|-----|--------|-----------|-------|
| | ponent | IIII VIII | auon |

| Chemical name | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-----------------------------------|--------------------|----------------------|----------------------|
| SODIUM LAURYL SULFATE 151-21-3 | = 1288 mg/kg (Rat) | = 580 mg/kg (Rabbit) | > 3900 mg/m³(Rat)1 h |

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 | Irritating to eyes and skin. |
| Sensitization | None known based on information supplied. |
| 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. |
| <u>Numerical measures of toxicity</u> - Product Information_ The following values are calculated based on chapter 3.1 of the GHS document | |

| ATEmix (oral) | 123372 mg/kg |
|-------------------------------|--------------|
| ATEmix (dermal) | 55556 mg/kg |
| ATEmix (inhalation-dust/mist) | 31673.3 mg/l |

12. ECOLOGICAL INFORMATION

Ecotoxicity

0.17238% of the mixture consists of components(s) of unknown hazards to the aquatic environment

| Chemical name Toxi | city to Algae Toxicity to Fish | Daphnia Magna (Water Flea) |
|--------------------|--------------------------------|----------------------------|
|--------------------|--------------------------------|----------------------------|

| | | r í | |
|-----------------------|------------------------------------|---------------------------------------|------------------------------|
| SODIUM LAURYL SULFATE | 53: 72 h Desmodesmus subspicatus | | 1.8: 48 h Daphnia magna mg/L |
| 151-21-3 | mg/L EC50 30 - 100: 96 h | mg/L LC50 semi-static 6.2 - 9.6: 96 | EC50 |
| | Desmodesmus subspicatus mg/L | h Pimephales promelas mg/L LC50 | |
| | EC50 117: 96 h Pseudokirchneriella | | |
| | subcapitata mg/L EC50 3.59 - 15.6: | | |
| | 96 h Pseudokirchneriella | 10.8 - 16.6: 96 h Poecilia reticulata | |
| | subcapitata mg/L EC50 static | mg/L LC50 static 1.31: 96 h | |
| | | Cyprinus carpio mg/L LC50 | |
| | | semi-static 8 - 12.5: 96 h | |
| | | Pimephales promelas mg/L LC50 | |
| | | static 15 - 18.9: 96 h Pimephales | |
| | | promelas mg/L LC50 static 22.1 - | |
| | | 22.8: 96 h Pimephales promelas | |
| | | mg/L LC50 static 4.3 - 8.5: 96 h | |
| | | Oncorhynchus mykiss mg/L LC50 | |
| | | static 4.62: 96 h Oncorhynchus | |
| | | mykiss mg/L LC50 flow-through 4.2: | |
| | | 96 h Oncorhynchus mykiss mg/L | |
| | | LC50 7.97: 96 h Brachydanio rerio | |
| | | mg/L LC50 flow-through 9.9 - 20.1: | |
| | | 96 h Brachydanio rerio mg/L LC50 | |
| | | semi-static 4.06 - 5.75: 96 h | |
| | | Lepomis macrochirus mg/L LC50 | |
| | | static 4.2 - 4.8: 96 h Lepomis | |
| | | macrochirus mg/L LC50 | |
| | | flow-through 4.5: 96 h Lepomis | |
| | | macrochirus mg/L LC50 5.8 - 7.5: | |
| | | 96 h Pimephales promelas mg/L | |
| | | LC50 static | |

Persistence and degradability

Persistence and degradability is not known based on information supplied.

Mobility

The mobility of this product has not been determined

Bioaccumulation

| Chemical name | Log Pow |
|-----------------------|---------|
| SODIUM LAURYL SULFATE | 1.6 |
| 151-21-3 | |

Other adverse effects

Endocrine system

None known

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

| Waste Disposal Method | 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

| DOT | Not regulated |
|-----|---------------|
|-----|---------------|

IATA Not regulated

15. REGULATORY INFORMATION

| International Inventories | |
|---------------------------|--|
| TSCA (USA) | Complies |
| DSL (Canada) | Complies |
| EINECS (Europe) | Complies |
| ENCS (Japan) | Complies |
| IECSC (China) | Complies |
| KECL (Korea) | Complies |
| PICCS (Philippines) | Complies |
| AICS (Australia) | Complies |
| ERMA (New Zealand) | Complies |
| Taiwan | This product does not comply with TECS |
| | |

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

| Chemical name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|-------------------------------|--------------------------------|------------------------|---------------------------|-------------------------------|
| SODIUM HYDROXIDE 1310-73-2 | 1000 lb | | | Х |

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

| Chemical name | Hazardous Substances Reportable Quantities | Extremely Hazardous Substances RQs |
|-------------------------------|---|------------------------------------|
| SODIUM HYDROXIDE 1310-73-2 | 1000 lb | |

California Prop. 65

This product does not contain any Proposition 65 chemicals

| 16. OTHER INFORMATION | | | | | | | | |
|-----------------------|--------------------|----------------|-------------|-------|--|--|--|--|
| <u>HMIS</u> | Health hazard 2 | Flammability 0 | Stability 0 | PPE B | | | | |
| Prepared by | by Michelman, Inc. | | | | | | | |
| Revision date | 30-Jun-2016 | | | | | | | |
| | | | | | | | | |

Reason for revision <u>Disclaimer</u> No information available

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End of Safety Data Sheet