# SAFETY DATA SHEET

# NAUGARD® 445 POWDER

| Version | Revision Date: | Date of last issue: 09/16/2020 |
|---|---|---|
| 1.2 | 10/15/2020 | Date of first issue: 09/04/2020 |

## SECTION 1. IDENTIFICATION

### Product identifier

| | | |
|---|---|---|
| Product name | : | NAUGARD® 445 POWDER |
| Other means of identification | : | 4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline |

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

| | | |
|---|---|---|
| Recommended use | : | Antioxidant |
| Restrictions on use | : | Reserved for industrial and professional use. |

### Manufacturer or supplier's details

**Supplier**

| | | |
|---|---|---|
| Company | : | SI Group USA (USAA), LLC |
| Address | : | 4 Mountainview Terrace<br>Suite 200<br>Danbury, CT<br>United States of America (USA)<br>06810 |
| E-mail address | : | msdsrequest@siigroup.com |

### Emergency telephone

| | | |
|---|---|---|
| Emergency Phone Number | : | CHEMTREC/US : +1 703-741-5970<br>NCEC/CHINA : 400 120 6011<br>NCEC/INDIA : 000 800 100 7479<br>NCEC/ROW : +44 1235 239670 |

## SECTION 2. HAZARDS IDENTIFICATION

### GHS classification in accordance with 29 CFR 1910.1200

| | | |
|---|---|---|
| Skin sensitization | : | Category 1B |
| Long-term (chronic) aquatic hazard | : | Category 4 |

Combustible dust

**GHS label elements**

Hazard pictograms :

Signal Word : Warning

Hazard Statements : H317 May cause an allergic skin reaction.
H413 May cause long lasting harmful effects to aquatic life.
May form combustible dust concentrations in air.

Precautionary Statements :

**Prevention:**

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves.

**Response:**

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.

**Disposal:**

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

**Other hazards**

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Substance name : 4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline

CAS-No. : 10081-67-1

**Hazardous ingredients**

| Chemical name | CAS-No. | Concentration (% w/w) |
|---|---|---|
| 4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline | 10081-67-1 | >= 90 - <= 100 |

The exact percentage concentrations of components are being withheld as a trade secret in accordance with paragraph (i) of §1910.120

## SECTION 4. FIRST AID MEASURES

| | | |
|---|---|---|
| General advice | : | Consult a physician. |
| If inhaled | : | Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion.<br>If symptoms persist, call a physician. |
| In case of skin contact | : | Take off contaminated clothing and shoes immediately.<br>Wash off with soap and plenty of water.<br>If symptoms persist, call a physician. |
| In case of eye contact | : | Flush eyes with water as a precaution.<br>Remove contact lenses.<br>Protect unharmed eye.<br>Keep eye wide open while rinsing.<br>If eye irritation persists, consult a specialist. |
| If swallowed | : | Clean mouth with water and drink afterwards plenty of water.<br>Do not give milk or alcoholic beverages.<br>Never give anything by mouth to an unconscious person.<br>Obtain medical attention. |
| Most important symptoms and effects, both acute and delayed | : | Allergic reactions<br>Dermatitis<br>Irritation<br>May cause sensitization by skin contact.<br>Product dust may be irritating to eyes, skin and respiratory system. |
| Notes to physician | : | The first aid procedure should be established in consultation with the doctor responsible for industrial medicine. |

## SECTION 5. FIRE-FIGHTING MEASURES

| | | |
|---|---|---|
| Suitable extinguishing media | : | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable extinguishing media | : | High volume water jet |
| Specific hazards during fire fighting | : | May form explosive dust-air mixture.<br><br>Do not allow run-off from fire fighting to enter drains or water courses.<br>Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. |
| Hazardous combustion products | : | No hazardous combustion products are known. |

| | | |
|---|---|---|
| Further information | : | Collect contaminated fire extinguishing water separately. This must not be discharged into drains.<br>Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. |
| Special protective equipment for fire-fighters | : | In the event of fire, wear self-contained breathing apparatus. |

## SECTION 6. ACCIDENTAL RELEASE MEASURES

| | | |
|---|---|---|
| Personal precautions, protective equipment and emergency procedures | : | Use personal protective equipment.<br>Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.<br>Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).<br>Non-sparking tools should be used.<br>Use personal protective equipment.<br>Avoid dust formation.<br>Avoid breathing dust.<br>Ensure adequate ventilation. |
| Environmental precautions | : | Try to prevent the material from entering drains or water courses.<br>If the product contaminates rivers and lakes or drains inform respective authorities. |
| Methods and materials for containment and cleaning up | : | Pick up and arrange disposal without creating dust.<br>Keep in suitable, closed containers for disposal. |

## SECTION 7. HANDLING AND STORAGE

| | | |
|---|---|---|
| Advice on protection against fire and explosion | : | Avoid dust formation.Provide appropriate exhaust ventilation at places where dust is formed. |
| Advice on safe handling | : | Minimize dust generation and accumulation.<br>Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.<br>Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations.<br>Keep away from heat and sources of ignition.<br><br>For personal protection see section 8.<br>Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.<br>Smoking, eating and drinking should be prohibited in the application area.<br>Dispose of rinse water in accordance with local and national |

regulations.

| | | |
|---|---|---|
| Conditions for safe storage | : | Keep container tightly closed in a dry and well-ventilated place. |
| Further information on storage stability | : | No decomposition if stored and applied as directed. |

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values.

**Engineering measures** : Use mechanical ventilation for general area control.
Dust must be extracted directly at the point of origin.
Ensure that extracted air cannot be returned to the workplace through the ventilation system.

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment.
Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure adequate ventilation, especially in confined areas.

Dust formation may be relevant in the processing of this product. In addition to substance-specific OELs, general limitations of concentrations of particulates in the air at workplaces have to be considered in workplace risk assessment. Relevant limits include: OSHA PEL for Particulates Not Otherwise Regulated of 15 mg/m3 - total dust, 5 mg/m3 - respirable fraction; and ACGIH TWA for Particles (insoluble or poorly soluble) Not Otherwise Specified of 3 mg/m3 - respirable particles, 10 mg/m3 - inhalable particles.

**Personal protective equipment**

Respiratory protection : In the case of dust or aerosol formation use respirator with

an approved filter.

Hand protection
Remarks : Polyvinyl alcohol or nitrile- butyl-rubber gloves Before removing gloves clean them with soap and water.

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles

Skin and body protection : Dust impervious protective suit
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

**Environmental exposure controls**

Water : Do not let product enter drains.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|---|---|---|
| Appearance | : | solid, powder |
| Color | : | white to off-white |
| Odor | : | characteristic |
| Odor Threshold | : | No data available |
| pH | : | No data available |
| Melting point/range | : | 95 °C / 95 °C |
| Boiling point/boiling range | : | > 400 °C / 400 °C<br>(101.3 kPa) |
| Flash point | : | 276.7 °C / 276.7 °C<br>Method: Tag closed cup |
| Evaporation rate | : | <Ether |
| Flammability (solid, gas) | : | The product is not flammable. |
| Upper explosion limit / Upper flammability limit | : | No data available |

| | | |
|---|---|---|
| Lower explosion limit / Lower flammability limit | : | No data available |
| Vapor pressure | : | 0.667 kPa (20 °C / 20 °C) |
| Relative vapor density | : | Heavier than air |
| Relative density | : | 1.14 |
| Density | : | 1.061 g/cm3 (20 °C / 20 °C) |
| Bulk density | : | No data available |
| Solubility(ies)<br>Water solubility | : | < 0.0067 mg/linsoluble (20 °C / 20 °C) |
| Solubility in other solvents | : | 408 g/lSolvent: Acetone |
| | | 7 g/lSolvent: Methanol |
| Partition coefficient: n-octanol/water | : | log Pow: 7.9 (25 °C / 25 °C) |
| Autoignition temperature | : | 298 °C / 298 °C |
| Decomposition temperature | : | No data available |
| Viscosity, dynamic | : | No data available |
| Viscosity, kinematic | : | No data available |
| Explosive properties | : | Not explosive |
| Oxidizing properties | : | The substance or mixture is not classified as oxidizing. |
| Surface tension | : | 72.9 mN/m,20 °C / 20 °C |
| Minimum ignition energy | : | 200 mJ |

## SECTION 10. STABILITY AND REACTIVITY

| | | |
|---|---|---|
| Reactivity | : | Stable under recommended storage conditions. |
| Chemical stability | : | No decomposition if stored and applied as directed. |
| Possibility of hazardous reactions | : | Hazardous polymerization does not occur.<br>Stable under recommended storage conditions.<br>No decomposition if used as directed. |

| | | |
|---|---|---|
| Conditions to avoid | : | No data available |
| Incompatible materials | : | Strong oxidizing agents |
| Hazardous decomposition products | : | Carbon oxides<br>Nitrogen oxides (NOx) |

## SECTION 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

**Product:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat): > 2,000 mg/kg<br>Method: OECD Test Guideline 423<br>GLP: yes<br>Assessment: The substance or mixture has no acute oral toxicity |
| Acute inhalation toxicity | : | Remarks: Not classified due to lack of data. |
| Acute dermal toxicity | : | LD50 (Rat):> 2,000 mg/kg<br>Method: OECD Test Guideline 434<br>GLP: yes<br>Assessment: The substance or mixture has no acute dermal toxicity |

**Components:**

**4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat, male): > 5,000 mg/kg<br>Assessment: The substance or mixture has no acute oral toxicity |
| Acute dermal toxicity | : | LD50 (Rabbit):> 3,000 mg/kg<br>Remarks: Information given is based on data obtained from similar substances. |

### Skin corrosion/irritation

**Product:**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Method | : | OECD-Guideline No. 404 |
| Result | : | No skin irritation |
| GLP | : | yes |
| Remarks | : | No significant adverse effects were reported |

**Components:**

**4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline:**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Exposure time | : | 24 h |
| Method | : | OECD Test Guideline 404 |
| Result | : | No skin irritation |
| Remarks | : | 0,5 ml; occlusive |

**Serious eye damage / eye irritation**

**Product:**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Result | : | No eye irritation |
| Method | : | OECD Test Guideline 405 |
| GLP | : | yes |
| Remarks | : | No significant adverse effects were reported |

**Components:**

**4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline:**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Result | : | No eye irritation |

**Respiratory or skin sensitization**

**Skin sensitization**

May cause an allergic skin reaction.

**Product:**

| | | |
|---|---|---|
| Test Type | : | Local lymph node assay (LLNA) |
| Species | : | Mouse |
| Assessment | : | May cause an allergic skin reaction. |
| Method | : | OECD Test Guideline 429 |
| Result | : | Causes sensitization. |
| GLP | : | yes |
| Remarks | : | Causes sensitization. |

**Components:**

**4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline:**

| | | |
|---|---|---|
| Assessment | : | May cause sensitization by skin contact. |

**Germ cell mutagenicity**

**Product:**

| | | |
|---|---|---|
| Genotoxicity in vitro | : | Test Type: Ames test<br>Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay)<br>Result: negative |

GLP: yes

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative
GLP: yes

Test Type: In Vitro mammalian Cell Gene Mutation Test
Method: OECD Test Guideline 476
Result: negative
GLP: yes

Genotoxicity in vivo : Remarks: No data available

Germ cell mutagenicity - Assessment : Not classified due to data which are conclusive although insufficient for classification.

**Components:**

**4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline:**

Genotoxicity in vitro : Test Type: Ames test
Metabolic activation: with and without metabolic activation
Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay)
Result: negative
GLP: yes

Germ cell mutagenicity - Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

**Carcinogenicity**

**Product:**

Remarks : No human information is available.

Carcinogenicity - Assessment : No data available, No evidence of carcinogenicity in animal studies.

**Reproductive toxicity**

**Product:**

Effects on fertility : Test Type: reproductive and developmental toxicity study
Species: Rat
Application Route: Oral
Dose: 50 milligram per kilogram
Frequency of Treatment: 54 daily
General Toxicity Parent:NOEC: 50 mg/kg body weight
General Toxicity F1:NOEC: 50 mg/kg body weight
Method: OECD Test Guideline 421

| | | |
|---|---|---|
| Effects on fetal development | : | Remarks: No data available |
| Reproductive toxicity - Assessment | : | Not classified due to lack of data. |

**Components:**

**4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline:**

| | | |
|---|---|---|
| Reproductive toxicity - Assessment | : | No toxicity to reproduction, Information given is based on data obtained from similar substances.<br>No effects on or via lactation, Information given is based on data obtained from similar substances. |

**STOT-single exposure**

**Product:**

| | | |
|---|---|---|
| Remarks | : | Not classified due to data which are conclusive although insufficient for classification. |

**STOT-repeated exposure**

**Product:**

| | | |
|---|---|---|
| Remarks | : | Not classified due to data which are conclusive although insufficient for classification. |

**Repeated dose toxicity**

**Product:**

| | | |
|---|---|---|
| Species | : | Rat |
| NOAEL | : | 40 mg/kg |
| Application Route | : | Oral |
| Exposure time | : | 28-day |
| Method | : | OECD Test Guideline 407 |
| GLP | : | yes |

| | | |
|---|---|---|
| Species | : | Rat |
| NOAEL | : | 100 mg/kg |
| Application Route | : | Oral |
| Exposure time | : | 13 weeks |
| Method | : | OECD Test Guideline 408 |
| GLP | : | yes |

**Aspiration toxicity**

**Product:**

No aspiration toxicity classification

**Further information**

**Product:**

| | | |
|---|---|---|
| Remarks | : | No data available |

## SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Product:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Zebra fish (Brachydanio rerio)): 100 mg/l<br>Exposure time: 96 h<br>Test Type: static test<br>Analytical monitoring: yes<br>Method: OECD Test Guideline 203<br>GLP: yes |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 100 mg/l<br>Exposure time: 48 h<br>Test Type: Immobilization<br>Analytical monitoring: yes<br>Method: OECD Test Guideline 202<br>GLP: yes |
| Toxicity to algae/aquatic plants | : | EC50 (Selenastrum capricornutum (green algae)): > 100 mg/l<br>End point: Growth inhibition<br>Exposure time: 72 h<br>Test Type: Growth inhibition<br>Analytical monitoring: yes<br>Method: OECD Test Guideline 201<br>GLP: yes<br>Remarks: No toxicity at the limit of solubility. |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC (Daphnia): 0.0038 mg/l<br>End point: Immobilization<br>Exposure time: 21 d<br>Analytical monitoring: yes<br>Method: OECD Test Guideline 211<br>GLP: yes<br>Remarks: No toxicity at the limit of solubility. |
| Toxicity to microorganisms | : | NOEC (activated sludge): > 1,000 mg/l<br>End point: Respiration inhibition<br>Exposure time: 3 h<br>Test Type: Respiration inhibition<br>Analytical monitoring: no<br>Method: OECD Test Guideline 209<br>GLP: yes |
| Toxicity to soil dwelling organisms | : | Test Type: Reproduction Test<br>NOEC (Eisenia fetida (earthworms)): 62.5 mg/kg |

Exposure time: 28 d
Method: OECD Test Guideline 222
GLP: yes

Plant toxicity : 63 mg/kg
End point: Growth inhibition
Test period: 21 d
Method: OECD Test Guideline 208
GLP: yes

**Components:**

**4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 1,000 mg/l
Exposure time: 96 h
Test Type: static test
GLP: yes
Remarks: Information given is based on data obtained from similar substances.
Aquatic toxicity is unlikely due to low solubility.

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 7.7 mg/l
Exposure time: 48 h
Test Type: static test
GLP: yes
Remarks: Information given is based on data obtained from similar substances.
Aquatic toxicity is unlikely due to low solubility.

Toxicity to algae/aquatic plants : ErC50 (Raphidocelis subcapitata (freshwater green alga)): > 1,000 mg/l
End point: Growth rate
Exposure time: 96 h
Test Type: static test
Remarks: Information given is based on data obtained from similar substances.

**Persistence and degradability**

**Product:**

Biodegradability : Method: CO2 Evolution Test
Remarks: Not readily biodegradable.

**Components:**

**4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline:**

Biodegradability : Result: According to the results of tests of biodegradability this product is not readily biodegradable.
Method: estimated

**Bioaccumulative potential**

**Product:**

Bioaccumulation : Remarks: Does not bioaccumulate.

**Components:**

**4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline:**

Partition coefficient: n-octanol/water : log Pow: 8.51
Method: estimated

**Mobility in soil**

**Product:**

Mobility : Remarks: No data available

Distribution among environmental compartments : Koc method
log Koc: 6.54
Method: OECD Test Guideline 121

**Other adverse effects**

**Product:**

Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
May cause long-term adverse effects in the aquatic environment.

## SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal methods**

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Offer surplus and non-recyclable solutions to a licensed

disposal company.

Contaminated packaging : Empty remaining contents.Dispose of as unused product.Do not re-use empty containers.

## SECTION 14. TRANSPORT INFORMATION

### International Regulations

**IATA-DGR**
Not regulated as a dangerous good

**IMDG-Code**
Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
Not applicable for product as supplied.

**Domestic regulation**

**49 CFR**
Not regulated as a dangerous good

## SECTION 15. REGULATORY INFORMATION

**EPCRA - Emergency Planning and Community Right-to-Know**

**CERCLA Reportable Quantity**
This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**
This material does not contain any components with a section 304 EHS RQ.

**SARA 302 Extremely Hazardous Substances Threshold Planning Quantity**

| Components | CAS-No. | Component TPQ (lbs) |
|---|---|---|

**SARA 311/312 Hazards** : See section 2 for classified hazards based on component information

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Clean Air Act**
This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

### Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

### US State Regulations

### Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

### The ingredients of this product are reported in the following inventories:

| | | |
|---|---|---|
| DSL | : | All components of this product are on the Canadian DSL |
| AICS | : | On the inventory, or in compliance with the inventory |
| NZIoC | : | On the inventory, or in compliance with the inventory |
| ENCS | : | Not in compliance with the inventory |
| ISHL | : | Not in compliance with the inventory |
| KECI | : | On the inventory, or in compliance with the inventory |
| PICCS | : | On the inventory, or in compliance with the inventory |
| IECSC | : | On the inventory, or in compliance with the inventory |
| TCSI | : | On the inventory, or in compliance with the inventory |
| TSCA | : | On or in compliance with the active portion of the TSCA inventory |

### TSCA list

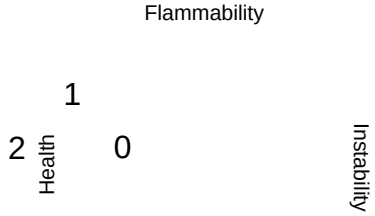
No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

## SECTION 16. OTHER INFORMATION

**Further information**

**NFPA 704:**




**HMIS® IV:**

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

**Full text of other abbreviations**

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition

Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

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