

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

- Trade name Torlon® 4000 TF

**1.2 Relevant identified uses of the substance or mixture and uses advised against****Uses of the Substance / Mixture**

- Plastics industry

**1.3 Details of the supplier of the safety data sheet****Company**

SOLVAY SPECIALTY POLYMERS USA, LLC  
4500 McGINNIS FERRY ROAD  
30005-3914, ALPHARETTA GA  
USA  
Tel: +1-770-7728200  
Fax: +1-770-7728213  
Product information:  
+1-800-6214557

**1.4 Emergency telephone**

FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CONTACT CHEMTREC (24-Hour Number): +1-800-424-9300 within the United States and Canada, or +1-703-527-3887 for international collect calls.

**SECTION 2: Hazards identification**

Although OSHA has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects.

**2.1 Classification of the substance or mixture****HCS 2012 (29 CFR 1910.1200)**

Combustible dust

May form combustible dust concentrations in air.

**2.2 Label elements****HCS 2012 (29 CFR 1910.1200)****Signal Word**

- Warning

**Hazard Statements**

- May form combustible dust concentrations in air.

**2.3 Other hazards which do not result in classification**

None identified

**SECTION 3: Composition/information on ingredients****3.1 Substance****Hazardous Ingredients and Impurities**

- No ingredients are hazardous.

**Non Hazardous Ingredients and Impurities**

Chemical name	Identification number CAS-No.	Concentration [%]
Poly(amide-imide) polymer	*****	>= 99.9

**3.2 Mixture**

- Not applicable, this product is a substance.

**SECTION 4: First aid measures****4.1 Description of first-aid measures****In case of inhalation**

- Remove to fresh air.
- If symptoms persist, call a physician.

**In case of skin contact**

- Cool skin rapidly with cold water after contact with hot polymer.
- Do not peel polymer from the skin.
- Obtain medical attention.

**In case of eye contact**

- Flush eyes with running water for several minutes, while keeping the eyelids wide open.
- If eye irritation persists, consult a specialist.

**In case of ingestion**

- Never give anything by mouth to an unconscious person.
- If a large amount is swallowed, get medical attention.

**4.2 Most important symptoms and effects, both acute and delayed****In case of inhalation****Effects**

- Mechanical irritation from the particulates generated by the product.
- Thermal decomposition can lead to release of hazardous gases and vapors

**In case of skin contact****Effects**

- Mechanical irritation from the particulates generated by the product.

**In case of eye contact****Effects**

- Mechanical irritation from the particulates generated by the product.

**In case of ingestion**

**Effects**

- Low ingestion hazard.

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

- no data available

**SECTION 5: Firefighting measures**

<b><u>Flash point</u></b>	Not applicable
<b><u>Autoignition temperature</u></b>	No data available
<b><u>Flammability / Explosive limit</u></b>	No data available

**5.1 Extinguishing media****Suitable extinguishing media**

- powder
- Foam
- Water
- Water spray
- Carbon dioxide (CO<sub>2</sub>)

**Unsuitable extinguishing media**

- None known.

**5.2 Special hazards arising from the substance or mixture**

- Combustible material
- In a fire, the polymer melts, producing droplets which may propagate fire.
- Once started, a fire will tend to self extinguish (see section 9).
- Heating can release hazardous gases.

**5.3 Advice for firefighters****Special protective equipment for fire-fighters**

- In the event of fire, wear self-contained breathing apparatus.
- Fire fighters must wear fire resistant personnel protective equipment.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures****Advice for non-emergency personnel**

- Refer to protective measures listed in sections 7 and 8.

**Advice for emergency responders**

- Sweep up to prevent slipping hazard.
- Avoid dust formation.
- Refer to protective measures listed in sections 7 and 8.

**6.2 Environmental precautions**

- Should not be released into the environment.
- The product should not be allowed to enter drains, water courses or the soil.

- In case of accidental release or spill, immediately notify the appropriate authorities if required by Federal, State/Provincial and local laws and regulations.

### 6.3 Methods and materials for containment and cleaning up

- Sweep up and shovel into suitable containers for disposal.
- Avoid dust formation.
- Keep in properly labeled containers.
- Keep in suitable, closed containers for disposal.
- Treat recovered material as described in the section "Disposal considerations".

### 6.4 Reference to other sections

- Refer to protective measures listed in sections 7 and 8.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

- Take measures to prevent the build up of electrostatic charge.
- Ensure all equipment is electrically grounded before beginning transfer operations.
- Use only equipment and materials which are compatible with the product.
- To avoid thermal decomposition, do not overheat.

#### Hygiene measures

- Wash hands before breaks and at the end of workday.
- Handle in accordance with good industrial hygiene and safety practice.

#### Dust explosion class

- St1

### 7.2 Conditions for safe storage, including any incompatibilities

#### Technical measures/Storage conditions

- Keep container closed.
- Keep away from heat and sources of ignition.
- Keep away from open flames, hot surfaces and sources of ignition.
- To avoid thermal decomposition, do not overheat.
- Avoid dust formation.
- Refer to protective measures listed in sections 7 and 8.
- Do not smoke.

### 7.3 Specific end use(s)

- no data available

## SECTION 8: Exposure controls/personal protection

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

### 8.1 Control parameters

- Contains no substances with occupational exposure limit values.

### **Components with workplace occupational exposure limits**

Components	Value type	Value	Basis
Particulates not otherwise regulated			National Institute for Occupational Safety and Health  Includes all inert or nuisance dusts, whether mineral, inorganic, not listed specifically in 1910.1000., See Appendix D - Substances with No Established RELs
particulates not otherwise regulated	TWA	15 mg/m3	Occupational Safety and Health Administration - Table Z-1 Limits for Air Contaminants  Form of exposure : total dust All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is the same as the inert or nuisance dust limit of Table Z-3.
particulates not otherwise regulated	TWA	5 mg/m3	Occupational Safety and Health Administration - Table Z-1 Limits for Air Contaminants  Form of exposure : respirable fraction All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is the same as the inert or nuisance dust limit of Table Z-3.
Particles (insoluble or poorly soluble) not otherwise specified	TWA	10 mg/m3	American Conference of Governmental Industrial Hygienists  Form of exposure : Inhalable particulate matter
Particles (insoluble or poorly soluble) not otherwise specified	TWA	3 mg/m3	American Conference of Governmental Industrial Hygienists  Form of exposure : Respirable particulate matter

## 8.2 Exposure controls

### **Control measures**

#### **Engineering measures**

- Provide local ventilation appropriate to the product decomposition risk (see section 10).
- Provide appropriate exhaust ventilation at places where dust is formed.
- Refer to protective measures listed in sections 7 and 8.

### **Individual protection measures**

#### **Respiratory protection**

- When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
- Use only respiratory protection that conforms to international/ national standards.
- Use NIOSH approved respiratory protection.

#### **Hand protection**

- When handling hot material, use heat resistant gloves.

#### **Eye protection**

- Safety glasses with side-shields
- Dust proof goggles, if dusty.

#### **Skin and body protection**

- Long sleeved clothing

**Hygiene measures**

- Wash hands before breaks and at the end of workday.
- Handle in accordance with good industrial hygiene and safety practice.

**Protective measures**

- When using do not eat, drink or smoke.

**SECTION 9: Physical and chemical properties**

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product information phone number in Section 1 for its exact specifications.

**9.1 Information on basic physical and chemical properties**

<b><u>Physical state</u></b>	solid
<b><u>Form</u></b>	powder
<b><u>Color</u></b>	yellow
<b><u>Odor</u></b>	odorless
<b><u>Odor Threshold</u></b>	No data available
<b><u>Melting point/freezing point</u></b>	<u>Softening point</u> : 536 °F (280 °C)
<b><u>Initial boiling point and boiling range</u></b>	<u>Boiling point/boiling range</u> : Not applicable
<b><u>Flammability (solid, gas)</u></b>	May form combustible dust concentrations in air., The product is not flammable.
<b><u>Flammability (liquids)</u></b>	No data available
<b><u>Flammability / Explosive limit</u></b>	No data available
<b><u>Flash point</u></b>	Not applicable
<b><u>Autoignition temperature</u></b>	No data available
<b><u>Decomposition temperature</u></b>	No data available
<b><u>pH</u></b>	Not applicable
<b><u>Viscosity</u></b>	No data available
<b><u>Solubility</u></b>	<u>Water solubility</u> : negligible
<b><u>Partition coefficient: n-octanol/water</u></b>	Not applicable
<b><u>Vapor pressure</u></b>	Not applicable
<b><u>Density</u></b>	No data available

<b><u>Relative density</u></b>	No data available
<b><u>Relative vapor density</u></b>	Not applicable
<b><u>Particle characteristics</u></b>	No data available
<b><u>Evaporation rate (Butylacetate = 1)</u></b>	No data available

**9.2 Other information**

<b><u>Dust deflagration index (Kst)</u></b>	171 m.bar/s
<b><u>Dust explosion constant</u></b>	St1
<b><u>Minimum ignition energy</u></b>	25 - 50 mJ

**SECTION 10: Stability and reactivity****10.1 Reactivity**

- No dangerous reaction known under conditions of normal use.

**10.2 Chemical stability**

- Stable under normal conditions.

**10.3 Possibility of hazardous reactions**

- No dangerous reaction known under conditions of normal use.

**polymerization**

- Hazardous polymerization does not occur.

**10.4 Conditions to avoid**

- Heat, flames and sparks.
- To avoid thermal decomposition, do not overheat.
- Avoid dust formation.

**10.5 Incompatible materials**

- None known.

**10.6 Hazardous decomposition products**

- Carbon monoxide
- The release of other hazardous decomposition products is possible.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

<b>Acute oral toxicity</b>	No data available
<b>Acute inhalation toxicity</b>	No data available
<b>Acute dermal toxicity</b>	No data available

<b>Acute toxicity (other routes of administration)</b>	No data available
<b><u>Skin corrosion/irritation</u></b>	No data available
<b><u>Serious eye damage/eye irritation</u></b>	No data available
<b><u>Respiratory or skin sensitization</u></b>	No data available
<b><u>Mutagenicity</u></b>	
<b>Genotoxicity in vitro</b>	No data available
<b>Genotoxicity in vivo</b>	No data available
<b><u>Carcinogenicity</u></b>	No data available

This product does not contain any ingredient designated as probable or suspected human carcinogens by:

NTP  
IARC  
OSHA

**Toxicity for reproduction and development**

<b>Toxicity to reproduction / fertility</b>	No data available
<b>Developmental Toxicity/Teratogenicity</b>	No data available

**STOT**

<b>STOT-single exposure</b>	No data available
<b>STOT-repeated exposure</b>	No data available
<b><u>Experience with human exposure</u></b>	No data available
<b><u>Aspiration toxicity</u></b>	No data available

**Further information**

Because the components are encapsulated in the resin and may not be bioavailable in the body, they may not exert the above mentioned health effects. Description of possible hazardous to health effects is based on experience and/or toxicological characteristics of several ingredients.

**SECTION 12: Ecological information**

**12.1 Toxicity**

**Aquatic Compartment**

<b>Acute toxicity to fish</b>	No data available
<b>Acute toxicity to daphnia and other aquatic invertebrates</b>	No data available
<b>Toxicity to aquatic plants</b>	No data available
<b>Toxicity to microorganisms</b>	No data available
<b>Chronic toxicity to fish</b>	No data available



**Chronic toxicity to daphnia and other aquatic invertebrates** No data available

## 12.2 Persistence and degradability

**Abiotic degradation** No data available

**Physical- and photo-chemical elimination** No data available

**Biodegradation** No data available

## 12.3 Bioaccumulative potential

**Partition coefficient: n-octanol/water** No data available

**Bioconcentration factor (BCF)** No data available

## 12.4 Mobility in soil

**Adsorption potential (Koc)** No data available

**Known distribution to environmental compartments** No data available

**12.5 Results of PBT and vPvB assessment** No data available

**12.6 Other adverse effects** No data available

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product Disposal

- In accordance with local and national regulations.
- Waste characterizations and compliance with applicable laws and regulations are the responsibility of the waste generator.
- Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities.
- Can be landfilled or incinerated, when in compliance with local regulations.
  
- Do not dump into any sewers, on the ground, or into any body of water. All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations.

#### Advice on cleaning and disposal of packaging

- Empty containers.
- Dispose of as unused product.
- For unused and uncontaminated product, the preferred options include sending to a licensed, permitted: recycler, reclaimer, incinerator or other thermal destruction device or industrial landfill.

## SECTION 14: Transport information

### 49 CFR

not regulated

### TDG

not regulated

**NOM**

not regulated

**IMDG**

not regulated

**IATA**

not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

**SECTION 15: Regulatory information****15.1 Notification status**

Inventory Information	Status
United States TSCA Inventory	- Listed as active on the TSCA inventory.
Canadian Domestic Substances List (DSL)	- In compliance with the inventory
Australian Inventory of Industrial Chemicals (AIIC)	- One or more components not listed on inventory
Japan. CSCL - Inventory of Existing and New Chemical Substances	- In compliance with the inventory
Korea. Korean Existing Chemicals Inventory (KECI)	- In compliance with the inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	- In compliance with the inventory
Taiwan Chemical Substance Inventory (TCSI)	- In compliance with the inventory
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	- One or more components not listed on inventory
EU. European Registration, Evaluation, Authorization and Restriction of Chemical (REACH)	- When purchased from a Syensqo legal entity based in the EEA ("European Economic Area"), this product is compliant with the registration provisions of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt, and/or registered. When purchased from a legal entity outside of the EEA, please contact your local representative for additional information.

**15.2 Federal Regulations****US. EPA EPCRA SARA Title III****SARA HAZARD DESIGNATION SECTIONS 311/312 (40 CFR 370)**

Combustible dust	Yes
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The categories not mentioned are not relevant for the product.

**Section 313 Toxic Chemicals (40 CFR 372.65)**

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.

**Section 302 Emergency Planning Extremely Hazardous Substance Threshold Planning Quantity (40 CFR 355)**

This material does not contain any components with a section 302 EHS TPQ.

**Section 302 Emergency Planning Extremely Hazardous Substance Reportable Quantity (40 CFR 355)**

This material does not contain any components with a SARA 302 RQ.

**Section 304 Emergency Release Notification Reportable Quantity (40 CFR 355)**

This material does not contain any components with a section 304 EHS RQ.

**US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)**

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

**15.3 State Regulations**

- no data available

**SECTION 16: Other information****Further information**

- Distribute new edition to clients

**Date Prepared:** 06/12/2024

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

- TWA: 8-hour, time-weighted average
- ACGIH: American Conference of Governmental Industrial Hygienists
- OSHA: Occupational Safety and Health Administration
- NTP: National Toxicology Program
- IARC: International Agency for Research on Cancer
- NIOSH: National Institute for Occupational Safety and Health
- ADR: European Agreement on International Carriage of Dangerous Goods by Road.
- ADN: European Agreement on the International Carriage of Dangerous Goods by Inland Waterways.
- RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
- IATA: International Air Transport Association.
- ICAO-TI: Technical Specification for Safe Transport of Dangerous Goods by Air.
- IMDG: International Maritime Dangerous Goods.
- TWA: Time weighted average
- ATE: Estimated value of acute toxicity
- EC: European Community number
- CAS: Chemical Abstracts Service.
- LD50: Substance that causes 50% (half) death in the test animals group (Median Fatal Dose).
- LC50: Substance concentration causing 50% (half) death in the test animals group.
- EC50: Effective Concentration of the substance causing the maximum of 50%.
- PBT: Persistent, Bioaccumulative and Toxic substance.
- vPvB: Very Persistent and Very Bioaccumulative.
- SEA: Classification, labeling, packaging regulation
- DNEL: Derived No Effect Level
- PNEC: Predicted No Effect Concentration
- STOT: Specific Target Organ Toxicity

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**Not all acronyms listed above are referenced in this SDS.**

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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. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose, and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.