



# Safety Data Sheet

acc. to 29 CFR 1910.1200 App D

## Millathane® 5004

Version number: B 1.0

Date of compilation: 2019-12-16

### SECTION 1: Identification

#### 1.1 Product identifier

Identification of the substance **Millathane® 5004**  
CAS number 27083-55-2  
Alternative name(s) Hexanedioic acid, polymer with 1,4-butanediol, 1,2-ethanediol and 1,1'-methylenebis[4-isocyanatobenzene]

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses Raw material ingredient in Rubber Industry

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

TSE Industries, Inc.  
5260 113th Avenue North  
Clearwater, Florida, 33760  
United States  
Telephone: +1 727-573-7676  
e-mail: SDSinquiry@tse-industries.com  
Website: WWW.TSE-Industries.com

#### 1.4 Emergency telephone number

Country	Name	Telephone
international	Infotrac®-International	+1-352-323-3500 (24/7)
United States	Infotrac®	+1-800-535-5053 (24/7)

### SECTION 2: Hazard(s) identification

#### 2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)  
This substance does not meet the criteria for classification.

#### 2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)  
not required

#### 2.3 Other hazards

Results of PBT and vPvB assessment  
According to the results of its assessment, this substance is not a PBT or a vPvB.

### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

Name of substance Millathane® 5004  
Identifiers  
CAS No 27083-55-2



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### SECTION 4: First-aid measures

#### 4.1 Description of first-aid measures

##### General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

##### Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

##### Following skin contact

Wash with plenty of soap and water.

##### Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

##### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

#### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

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

none

### SECTION 5: Fire-fighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Water, Foam, ABC-powder

##### Unsuitable extinguishing media

Water jet

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

##### Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

##### Special protective equipment for firefighters

Wear suitable protective clothing and gloves, Self-contained breathing apparatus (SCBA)



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### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

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

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Take up mechanically. Vacuum or sweep up material into an approved container for disposal. Seal the container and dispose according to instructions in Section 13 of this SDS.

#### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

- Specific notes/details

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

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

Control of the effects

Keep in a cool place.

Protect against external exposure, such as

Sunlight

Maintaining of the integrity of the substance or mixture

Keep away from oxidizing and acidic substances. Store in a dry place. Store in a closed container. Store in a well-ventilated place. Keep container tightly closed.

#### 7.3 Specific end use(s)

See section 16 for a general overview.



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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

Specific exposure limits have not been established. .

#### 8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear protective gloves.

- Other protection measures

Protective clothing for use against solid particulates.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation if material is ground, cut or used in any operation that may generate excessive heat or dust. .

### SECTION 9: Physical and chemical properties

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

##### Appearance

Physical state	solid
Color	White to opaque
Odor	characteristic

##### Other safety parameters

pH (value)	not applicable
Melting point/freezing point	not determined
Initial boiling point and boiling range	not determined
Flash point	not applicable
Evaporation rate	not determined
Flammability (solid, gas)	this material is combustible, but will not ignite readily



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Explosion limits of dust clouds	not determined
Vapor pressure	not determined
Density	not determined
Vapor density	this information is not available
Bulk density	1.21 g/cm <sup>3</sup>
Relative density	information on this property is not available
Solubility(ies)	Tetrahydrofuran Dimethylformamide Chlorinated Solvents

### Partition coefficient

- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	not determined
Decomposition temperature	>350 °F
Viscosity	not relevant (solid matter)
Explosive properties	none
Oxidizing properties	none

### 9.2 Other information

Solid content	100 %
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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

This material is not reactive under normal ambient conditions.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

Heat. Light. Water content (moister).

#### Hints to prevent fire or explosion

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

### 10.5 Incompatible materials

Oxidizers



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### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

This substance does not meet the criteria for classification.

#### Acute toxicity

Shall not be classified as acutely toxic.

#### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

#### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

#### Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

#### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

#### Carcinogenicity

Shall not be classified as carcinogenic.

#### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

#### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

#### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

#### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

## SECTION 12: Ecological information

### 12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

### 12.2 Persistence and degradability

Data are not available.

### 12.3 Bioaccumulative potential

Data are not available.

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.



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### 12.6 Other adverse effects

Endocrine disrupting potential

Not listed.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Dispose product via a licensed waste disposal contractor in accordance with existing federal, state and local environmental laws. Incineration is the preferred method.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Remarks

Please consider the relevant national or regional provisions.

## SECTION 14: Transport information

- |   |   |
|---|---|
| 14.1 UN number  | not subject to transport regulations                                  |
| 14.2 UN proper shipping name  | not assigned  |
| 14.3 Transport hazard class(es)   | not assigned  |
| 14.4 Packing group  | not assigned  |
| 14.5 Environmental hazards  | non-environmentally hazardous acc. to the dangerous goods regulations |
| 14.6 Special precautions for user                                       |   |
| There is no additional information.                                     |   |
| 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code |   |
| The cargo is not intended to be carried in bulk.                        |   |

### Information for each of the UN Model Regulations

#### **Transport of dangerous goods by road or rail (49 CFR US DOT)**

Not subject to transport regulations.

#### **International Maritime Dangerous Goods Code (IMDG)**

Not subject to IMDG.

#### **International Civil Aviation Organization (ICAO-IATA/DGR)**

Not subject to ICAO-IATA.



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### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations specific for the product in question

##### National regulations (United States)

**Toxic Substance Control Act (TSCA)** substance is listed

##### Superfund Amendment and Reauthorization Act (SARA TITLE III )

- Specific Toxic Chemical Listings (EPCRA Section 313)  
not listed

##### Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)  
not listed

##### Clean Air Act

not listed

##### Right to Know Hazardous Substance List

- Hazardous Substance List (NJ-RTK)  
not listed

##### California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

not listed

##### VOC content

Regulated Volatile Organic Compounds (VOC-EPA): Regulated Volatile Organic Compounds (VOC-Cal ARB):

##### National inventories

Country	Inventory	Status
EU	REACH Reg.	the substance is exempted from the obligation to register
US	TSCA	substance is listed

##### Legend

REACH Reg. REACH registered substances  
TSCA Toxic Substance Control Act

#### 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

### SECTION 16: Other information, including date of preparation or last revision

#### Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety-rel- evant
1.3	Details of the supplier of the safety data sheet: TSE Industries, Inc. 5260 113th Avenue North Clearwater, Florida, 33760 United States Telephone: +1 727-576-7676 e-mail: SDSinquiry@tse-industries.com Website: WWW.TSE-Industries.com	Details of the supplier of the safety data sheet: TSE Industries, Inc. 5260 113th Avenue North Clearwater, Florida, 33760 United States Telephone: +1 727-573-7676 e-mail: SDSinquiry@tse-industries.com Website: WWW.TSE-Industries.com	yes





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Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
4.1	Following skin contact: Brush off loose particles from skin. Rinse skin with water/shower.	Following skin contact: Wash with plenty of soap and water.	yes
5.2	Special hazards arising from the substance or mixture: Deposited combustible dust has considerable explosion potential.	Special hazards arising from the substance or mixture	yes
5.2	Hazardous combustion products: Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO2)	Hazardous combustion products: Carbon monoxide (CO), Carbon dioxide (CO2)	yes
7.1	- Measures to prevent fire as well as aerosol and dust generation: Use local and general ventilation. Take precautionary measures against static discharge. Use only in well-ventilated areas.	- Measures to prevent fire as well as aerosol and dust generation: Use local and general ventilation. Use only in well-ventilated areas.	yes
7.2	- Ventilation requirements: Use local and general ventilation.		yes
8.1		Occupational exposure limit values (Workplace Exposure Limits): change in the listing (table)	yes
8.2	Respiratory protection: Particulate filter device (EN 143).	Respiratory protection: In case of inadequate ventilation wear respiratory protection.	yes
9.1	Decomposition temperature: >170 °C, >350 °F	Decomposition temperature: >350 °F	yes
14.2	UN proper shipping name: not relevant	UN proper shipping name: not assigned	yes
14.3	Transport hazard class(es): none	Transport hazard class(es): not assigned	yes
14.4	Packing group: not relevant	Packing group: not assigned	yes
15.1	Toxic Substance Control Act (TSCA): all ingredients are listed or exempt from listing	Toxic Substance Control Act (TSCA): substance is listed	yes
15.1	New Jersey Worker and Community Right to Know Act N.J.S.A. 34:5A-1 et. seq. not listed		yes
15.1		Right to Know Hazardous Substance List	yes
15.1		Hazardous Substance List (NJ-RTK): not listed	yes
15.1		VOC content: Regulated Volatile Organic Compounds (VOC-EPA): Regulated Volatile Organic Compounds (VOC-Cal ARB):	yes
15.1		National inventories	yes
15.1		National inventories: change in the listing (table)	yes
16		Abbreviations and acronyms: change in the listing (table)	yes



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### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
49 CFR US DOT	49 CFR U.S. Department of Transportation
Cal ARB	California Air Resources Board
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
DGR	Dangerous Goods Regulations (see IATA/DGR)
EPA	Environmental Protection Agency. An agency of the federal government of the United States charged with protecting human health and the environment
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative

### Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.