

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product Form : Mixture  
Product Name : HTT PCR Mix

Product Reference #:145590

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

##### 1.2.1. Relevant identified uses

Use of the substance/mixture : For research use only. Not for use in diagnostic procedures.

##### 1.2.2. Uses advised against

No additional information available

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

##### Company

Asuragen, Inc.  
2150 Woodward Ave Suite 100  
Austin, TX 78744  
T: +1 512-681-5200  
USA, Toll-free T: +1 877-777-1874  
E-mail: support@asuragen.com  
Web address: www.asuragen.com

#### 1.4. Emergency telephone number

Emergency number : Tel: +1 -512-681-5200 US, Toll-free Tel: 1-877-777-1874

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Classification According to Regulation (EC) No. 1272/2008 [CLP]

Not classified

#### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

Labelling According to Regulation (EC) No. 1272/2008 [CLP]

EUH-statements : EUH210 - Safety data sheet available on request.

#### 2.3. Other hazards

Other hazards not contributing to the classification : Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixture

Name	Product identifier	%	Classification According to Regulation (EC) No. 1272/2008 [CLP]
Water	(CAS-No.) 7732-18-5 (EC-No.) 231-791-2	77,40	Not classified
Methanaminium, 1-carboxy-N,N,N-trimethyl-, inner salt	(CAS-No.) 107-43-7 (EC-No.) 203-490-6	15,84	Not classified
Dimethyl sulfoxide	(CAS-No.) 67-68-5 (EC-No.) 200-664-3	4,40	Not classified
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-	(CAS-No.) 77-86-1 (EC-No.) 201-064-4	1,84	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Polyoxyethylene monohexadecyl ether	(CAS-No.) 9004-95-9 (EC-No.) 500-014-1	0,22	Skin Irrit. 2, H315

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Name	Product identifier	%	Classification According to Regulation (EC) No. 1272/2008 [CLP]
Glycerin	(CAS-No.) 56-81-5 (EC-No.) 200-289-5	0,06 - 0,08	Not classified
Ammonium sulfate	(CAS-No.) 7783-20-2 (EC-No.) 231-984-1	0,05	Not classified
Magnesium sulfate	(CAS-No.) 7487-88-9 (EC-No.) 231-298-2	0,01	Not classified

Full text of H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.
- First-aid measures after skin contact : Remove contaminated clothing. Drench affected area with water for at least 5 minutes. Obtain medical attention if irritation develops or persists.
- First-aid measures after eye contact : Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

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

- Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.
- Symptoms/effects after inhalation : Prolonged exposure may cause irritation.
- Symptoms/effects after skin contact : Prolonged exposure may cause skin irritation.
- Symptoms/effects after eye contact : May cause slight irritation to eyes.
- Symptoms/effects after ingestion : Ingestion may cause adverse effects.
- Chronic symptoms : None known.

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

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Water spray, fog, carbon dioxide (CO<sub>2</sub>), alcohol-resistant foam, or dry chemical.
- Unsuitable extinguishing media : Do not use a heavy water stream. Use of heavy stream of water may spread fire.

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

- Fire hazard : Not considered flammable but may burn at high temperatures.
- Explosion hazard : Product is not explosive.
- Reactivity : Hazardous reactions will not occur under normal conditions.
- Hazardous decomposition products in case of fire : Sulfur oxides. Nitrogen oxides.

### 5.3. Advice for firefighters

- Precautionary measures fire : Exercise caution when fighting any chemical fire.
- Firefighting instructions : Use water spray or fog for cooling exposed containers.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

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

- General measures : Avoid prolonged contact with eyes, skin and clothing. Avoid breathing (vapor, mist, spray).

#### 6.1.1. For non-emergency personnel

- Protective equipment : Use appropriate personal protective equipment (PPE).
- Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.

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Emergency procedures : Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters.

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

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

### 6.4. Reference to other sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : As supplied, this product is a liquid. However, when dried this product may produce combustible dust when processed. Use caution when working with combustible dusts. Use appropriate engineering controls to keep generation of airborne dust to a minimum.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing vapors, mist, spray.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures.

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

Technical measures : Comply with applicable regulations.

Storage conditions : Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible materials : Strong acids, strong bases, strong oxidizers.

### 7.3. Specific end use(s)

For research use only. Not for use in diagnostic procedures.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Ammonium sulfate (7783-20-2)		
Bulgaria	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Latvia	OEL TWA (mg/m <sup>3</sup> )	0,02 mg/m <sup>3</sup> (hydrate)
Dimethyl sulfoxide (67-68-5)		
Austria	MAK (mg/m <sup>3</sup> )	160 mg/m <sup>3</sup>
Austria	MAK (ppm)	50 ppm
Austria	OEL chemical category (AT)	Skin notation
Germany	TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	160 mg/m <sup>3</sup> (The risk of damage to the embryo or fetus cannot be excluded even when AGW and BGW values are observed)
Germany	TRGS 900 Occupational exposure limit value (ppm)	50 ppm (The risk of damage to the embryo or fetus cannot be excluded even when AGW and BGW values are observed)
Germany	TRGS 900 chemical category	Skin notation
Switzerland	KZGW (mg/m <sup>3</sup> )	320 mg/m <sup>3</sup>
Switzerland	KZGW (ppm)	100 ppm
Switzerland	MAK (mg/m <sup>3</sup> )	160 mg/m <sup>3</sup>
Switzerland	MAK (ppm)	50 ppm
Switzerland	OEL chemical category (CH)	Skin notation
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	160 mg/m <sup>3</sup>
Denmark	Grænseværdie (langvarig) (ppm)	50 ppm

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<b>Dimethyl sulfoxide (67-68-5)</b>		
Estonia	OEL TWA (mg/m <sup>3</sup> )	150 mg/m <sup>3</sup>
Estonia	OEL TWA (ppm)	50 ppm
Estonia	OEL STEL (mg/m <sup>3</sup> )	500 mg/m <sup>3</sup>
Estonia	OEL STEL (ppm)	150 ppm
Estonia	OEL chemical category (ET)	Skin notation
Finland	HTP-arvo (8h) (ppm)	50 ppm
Finland	OEL chemical category (FI)	Potential for cutaneous absorption
Lithuania	IPRV (mg/m <sup>3</sup> )	150 mg/m <sup>3</sup>
Lithuania	IPRV (ppm)	50 ppm
Lithuania	TPRV (mg/m <sup>3</sup> )	500 mg/m <sup>3</sup>
Lithuania	TPRV (ppm)	150 ppm
Lithuania	OEL chemical category (LT)	Skin notation
Slovenia	OEL TWA (mg/m <sup>3</sup> )	160 mg/m <sup>3</sup>
Slovenia	OEL chemical category (SL)	Potential for cutaneous absorption
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	150 mg/m <sup>3</sup>
Sweden	nivågränsvärde (NVG) (ppm)	50 ppm
Sweden	kortidsvärde (KTV) (mg/m <sup>3</sup> )	500 mg/m <sup>3</sup>
Sweden	kortidsvärde (KTV) (ppm)	150 ppm
Sweden	OEL chemical category (SE)	Skin notation
<b>Glycerin (56-81-5)</b>		
Belgium	Limit value (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (mist)
Croatia	GVI (granična vrijednost izloženosti) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
France	VME (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (aerosol)
Germany	TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	200 mg/m <sup>3</sup> (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed-inhalable fraction)
Greece	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Spain	VLA-ED (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (mist)
Switzerland	KZGW (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup> (inhalable dust)
Switzerland	MAK (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup> (inhalable dust)
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (mist)
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	30 mg/m <sup>3</sup> (calculated-mist)
Czech Republic	Expoziční limity (PEL) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Estonia	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Finland	HTP-arvo (8h) (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (mist)
Ireland	OEL (15 min ref) (mg/m <sup>3</sup> )	30 mg/m <sup>3</sup> (calculated-mist)
Poland	NDS (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (inhalable fraction)
Portugal	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (mist)

## 8.2. Exposure controls

Appropriate engineering controls

: Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal protective equipment

: Gloves. Protective clothing. Protective goggles.



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Materials for protective clothing	: Chemically resistant materials and fabrics.
Hand protection	: Wear protective gloves.
Eye and Face Protection	: Chemical safety goggles.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.
Other information	: When using, do not eat, drink or smoke.

## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Colour	: No data available
Odour	: Odorless
Odour threshold	: No data available
pH	: No data available
Evaporation rate	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient: n-octanol/water	: No data available
Viscosity	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

### 10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Direct sunlight, extremely high or low temperatures, and incompatible materials.

### 10.5. Incompatible materials

Strong acids, strong bases, strong oxidizers.

### 10.6. Hazardous decomposition products

Sulfur oxides. Nitrogen oxides. Ammonia. Toxic fumes.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified (Based on available data, the classification criteria are not met)

#### Magnesium sulfate (7487-88-9)

LD50 oral rat	> 2000 mg/kg
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<b>1,3-Propanediol, 2-amino-2-(hydroxymethyl)- (77-86-1)</b>	
LD50 oral rat	5900 mg/kg
LD50 dermal rat	> 5000 mg/kg
<b>Ammonium sulfate (7783-20-2)</b>	
LD50 oral rat	2840 mg/kg
LD50 dermal rat	> 2000 mg/kg
<b>Dimethyl sulfoxide (67-68-5)</b>	
LD50 oral rat	> 20000 mg/kg
LD50 dermal rat	≈ 40000 mg/kg
LC50 inhalation rat (mg/l)	> 5,33 mg/l/4h
<b>Polyoxyethylene monohexadecyl ether (9004-95-9)</b>	
LD50 oral rat	2500 mg/kg
<b>Glycerin (56-81-5)</b>	
LD50 oral rat	12600 mg/kg
LD50 dermal rabbit	> 10 g/kg
LC50 inhalation rat (mg/l)	> 570 mg/m <sup>3</sup> (Exposure time: 1 h)

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Symptoms/Injuries After Inhalation	: Prolonged exposure may cause irritation.
Symptoms/Injuries After Skin Contact	: Prolonged exposure may cause skin irritation.
Symptoms/Injuries After Eye Contact	: May cause slight irritation to eyes.
Symptoms/Injuries After Ingestion	: Ingestion may cause adverse effects.
Chronic Symptoms	: None known.
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Not classified.

<b>Magnesium sulfate (7487-88-9)</b>	
LC50 fish 1	2610 - 3080 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	266,4 - 417,3 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
<b>Ammonium sulfate (7783-20-2)</b>	
LC50 fish 1	53 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	121,7 mg/l (Exposure time: 48 h - Species: Daphnia magna)

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<b>Dimethyl sulfoxide (67-68-5)</b>	
LC50 fish 1	34 g/l (Exposure time: 96 h - Species: Pimephales promelas)
LC50 fish 2	33 - 37 g/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
<b>Glycerin (56-81-5)</b>	
LC50 fish 1	54000 (51000 - 57000) mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

### 12.2. Persistence and degradability

<b>HTT PCR Mix</b>	
Persistence and degradability	Not established.

### 12.3. Bioaccumulative potential

<b>HTT PCR Mix</b>	
Bioaccumulative potential	Not established.

### 1,3-Propanediol, 2-amino-2-(hydroxymethyl)- (77-86-1)

BCF fish 1	3 (Estimated using a regression-derived equation)
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### Ammonium sulfate (7783-20-2)

Log Pow	-5,1 (at 25 °C)
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### Dimethyl sulfoxide (67-68-5)

Log Pow	-2,03
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### Glycerin (56-81-5)

BCF fish 1	(no bioaccumulation)
Log Pow	-1,76

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging disposal : Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
Not regulated for transport				
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No

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### 14.6. Special precautions for user

No additional information available

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

#### Magnesium sulfate (7487-88-9)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### 1,3-Propanediol, 2-amino-2-(hydroxymethyl)- (77-86-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### Ammonium sulfate (7783-20-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### Methanaminium, 1-carboxy-N,N,N-trimethyl-, inner salt (107-43-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### Dimethyl sulfoxide (67-68-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### Water (7732-18-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### Glycerin (56-81-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Date of Preparation or Latest Revision : 15/10/2018

Data sources : Information and data obtained and used in the authoring of this safety data sheet could come from database subscriptions, official government regulatory body websites, product/ingredient manufacturer or supplier specific information, and/or resources that include substance specific data and classifications according to GHS or their subsequent adoption of GHS.

Other information : According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Full Text of H- and EUH-statements:

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
EUH210	Safety data sheet available on request.

**Indication of Changes** No additional information available

### Abbreviations and Acronyms

ACGIH – American Conference of Governmental Industrial Hygienists  
ADN – European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways  
ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

MARPOL - International Convention for the Prevention of Pollution  
NDS - Najwyższe Dopuszczalne Stezenie  
NDSCh - Najwyższe Dopuszczalne Stezenie Chwilowe  
NDSP - Najwyższe Dopuszczalne Stezenie Pulapowe  
NOAEL - No-Observed Adverse Effect Level



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ATE - Acute Toxicity Estimate	NOEC - No-Observed Effect Concentration
BCF - Bioconcentration Factor	NRD - Nevirsytinas Ribinis Dydis
BEI - Biological Exposure Indices (BEI)	NTP - National Toxicology Program
BOD - Biochemical Oxygen Demand	OEL - Occupational Exposure Limits
CAS No. - Chemical Abstracts Service Number	PBT - Persistent, Bioaccumulative and Toxic
CLP - Classification, Labeling and Packaging Regulation (EC) No 1272/2008	PEL - Permissible Exposure Limit
COD - Chemical Oxygen Demand	pH - Potential Hydrogen
EC - European Community	REACH - Registration, Evaluation, Authorisation, and Restriction of Chemicals
EC50 - Median Effective Concentration	RID - Regulations Concerning the International Carriage of Dangerous Goods by Rail
EEC - European Economic Community	SADT - Self Accelerating Decomposition Temperature
EINECS - European Inventory of Existing Commercial Chemical Substances	SDS - Safety Data Sheet
EmS-No. (Fire) - IMDG Emergency Schedule Fire	STEL - Short Term Exposure Limit
EmS-No. (Spillage) - IMDG Emergency Schedule Spillage	TA-Luft - Technische Anleitung zur Reinhaltung der Luft
EU - European Union	TEL TRK - Technical Guidance Concentrations
ErC50 - EC50 in Terms of Reduction Growth Rate	ThOD - Theoretical Oxygen Demand
GHS - Globally Harmonized System of Classification and Labeling of Chemicals	TLM - Median Tolerance Limit
IARC - International Agency for Research on Cancer	TLV - Threshold Limit Value
IATA - International Air Transport Association	TPRD - Trumpalaikio Poveikio Ribinis Dydis
IBC Code - International Bulk Chemical Code	TRGS 510 - Technische Regel für Gefahrstoffe 510 - Lagerung von Gefahrstoffen in ortsbeweglichen Behältern
IMDG - International Maritime Dangerous Goods	TRGS 552 - Technische Regeln für Gefahrstoffe - N-Nitrosamine
IPRV - Ilgalaikio Poveikio Ribinis Dydis	TRGS 900 - Technische Regel für Gefahrstoffe 900 - Arbeitsplatzgrenzwerte
IOELV - Indicative Occupational Exposure Limit Value	TRGS 903 - Technische Regel für Gefahrstoffe 903 - Biologische Grenzwerte
LC50 - Median Lethal Concentration	TSCA - Toxic Substances Control Act
LD50 - Median Lethal Dose	TWA - Time Weighted Average
LOAEL - Lowest Observed Adverse Effect Level	VOC - Volatile Organic Compounds
LOEC - Lowest-Observed-Effect Concentration	VLA-EC - Valor Límite Ambiental Exposición de Corta Duración
Log Koc - Soil Organic Carbon-water Partitioning Coefficient	VLA-ED - Valor Límite Ambiental Exposición Diaria
Log Kow - Octanol/water Partition Coefficient	VLE - Valeur Limite D'exposition
Log Pow - Ratio of the equilibrium concentration (C) of a dissolved substance in a two-phase system consisting of two largely immiscible solvents, in this case octanol and water	VME - Valeur Limite De Moyenne Exposition
MAK - Maximum Workplace Concentration/Maximum Permissible Concentration	vPvB - Very Persistent and Very Bioaccumulative
	WEL - Workplace Exposure Limit
	WGK - Wassergefährdungsklasse

EU GHS SDS

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*