

RESIMENE 3520 S-65

Version Revision Date: SDS Number: Date of last issue: 11/30/2016
3.2 03/31/2017 8004-00009 Date of first issue: 08/20/2014

SECTION 1. IDENTIFICATION

Product name : RESIMENE 3520 S-65

Product code : 22568

Manufacturer or supplier's details

Company name of supplier : INEOS Melamines LLC

Address : 730-B Worcester Street
Springfield, USA MA 01151

Telephone : +1 888 723 2873

Telefax : +1 413 730 3444

Emergency telephone : Emergency telephone number (24 h / 365 d):
+1-352-323-3500
(GBK/Infotrac ID 92706)

E-mail address : SDB-Melamines@ineos.com

Recommended use of the chemical and restrictions on use

Recommended use : Additive
Curing chemical
Industrial use
Rubber additive

SECTION 2. HAZARDS IDENTIFICATION**GHS classification in accordance with 29 CFR 1910.1200**

Combustible dust

GHS label elements

Signal Word : Warning

Hazard Statements : May form combustible dust concentrations in air.

Other hazards

Dust contact with the eyes can lead to mechanical irritation.
Contact with dust can cause mechanical irritation or drying of the skin.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Methylated melamine formaldehyde resin, on an inert silica base

Special ingredients : Specification for free Formaldehyde content: <= 0.09 %

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Hazardous ingredients

| Chemical name | CAS-No. | Concentration (% w/w) |
|--|-------------|-----------------------|
| Silica gel, precipitated, crystalline free | 112926-00-8 | 33 |
| Methanol | 67-56-1 | 0.11 |

SECTION 4. FIRST AID MEASURES

- General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
 When symptoms persist or in all cases of doubt seek medical advice.
- If inhaled : If inhaled, remove to fresh air.
 Get medical attention.
- In case of skin contact : In case of contact, immediately flush skin with soap and plenty of water.
 Remove contaminated clothing and shoes.
 Get medical attention.
 Wash clothing before reuse.
 Thoroughly clean shoes before reuse.
- In case of eye contact : If in eyes, rinse well with water.
 Get medical attention if irritation develops and persists.
- If swallowed : If swallowed, DO NOT induce vomiting.
 Get medical attention.
 Rinse mouth thoroughly with water.
- Most important symptoms and effects, both acute and delayed : Contact with dust can cause mechanical irritation or drying of the skin.
 Dust contact with the eyes can lead to mechanical irritation.
- Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.
- Notes to physician : Treat symptomatically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Water spray
 Alcohol-resistant foam
 Carbon dioxide (CO₂)
 Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire fighting : Do not use a solid water stream as it may scatter and spread fire.

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- Exposure to combustion products may be a hazard to health.
- Hazardous combustion products : Carbon oxides
Nitrogen oxides (NOx)
Formaldehyde
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Follow safe handling advice and personal protective equipment recommendations.
- Environmental precautions : Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Sweep up or vacuum up spillage and collect in suitable container for disposal.
Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).
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.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

- Technical measures : Static electricity may accumulate and ignite suspended dust causing an explosion.
Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.
- Local/Total ventilation : Use only with adequate ventilation.
- Advice on safe handling : Do not breathe dust.
Do not swallow.

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Avoid contact with eyes.
 Avoid prolonged or repeated contact with skin.
 Handle in accordance with good industrial hygiene and safety practice.
 Minimize dust generation and accumulation.
 Keep container closed when not in use.
 Keep away from heat and sources of ignition.
 Take care to prevent spills, waste and minimize release to the environment.

Conditions for safe storage : Keep in properly labeled containers.
 Store in accordance with the particular national regulations.

Materials to avoid : Do not store with the following product types:
 Strong oxidizing agents

Recommended storage temperature : ≤ 40 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

| Ingredients | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|--|-------------|-------------------------------|---|-----------|
| Silica gel, precipitated, crystalline free | 112926-00-8 | TWA (Dust) | 20 Million particles per cubic foot (Silica) | OSHA Z-3 |
| | | TWA (Dust) | 80 mg/m ³ / %SiO ₂ (Silica) | OSHA Z-3 |
| | | TWA | 6 mg/m ³ (Silica) | NIOSH REL |
| Methanol | 67-56-1 | TWA | 200 ppm | ACGIH |
| | | STEL | 250 ppm | ACGIH |
| | | TWA | 200 ppm 260 mg/m ³ | NIOSH REL |
| | | ST | 250 ppm 325 mg/m ³ | NIOSH REL |
| | | TWA | 200 ppm 260 mg/m ³ | OSHA Z-1 |

Occupational exposure limits of decomposition products

| Ingredients | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|--------------|---------|-------------------------------|--|-----------|
| Formaldehyde | 50-00-0 | C | 0.3 ppm | ACGIH |
| | | TWA | 0.016 ppm | NIOSH REL |
| | | C | 0.1 ppm | NIOSH REL |
| | | PEL | 0.75 ppm | OSHA CARC |
| | | STEL | 2 ppm | OSHA CARC |

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|----------|---------|------|----------------------------------|-----------|
| | | TWA | 0.016 ppm (Formaldehyde) | NIOSH REL |
| | | C | 0.1 ppm (Formaldehyde) | NIOSH REL |
| Methanol | 67-56-1 | TWA | 200 ppm | ACGIH |
| | | STEL | 250 ppm | ACGIH |
| | | TWA | 200 ppm 260 mg/m ³ | NIOSH REL |
| | | ST | 250 ppm 325 mg/m ³ | NIOSH REL |
| | | TWA | 200 ppm 260 mg/m ³ | OSHA Z-1 |

Biological occupational exposure limits

| Ingredients | CAS-No. | Control parameters | Biological specimen | Sam-pling time | Permissible concentra-tion | Basis |
|-------------|---------|--------------------|---------------------|--|----------------------------|-----------|
| Methanol | 67-56-1 | Methanol | Urine | End of shift (As soon as possible after exposure ceases) | 15 mg/l | ACGIH BEI |

Engineering measures : Processing may form hazardous compounds (see section 10).
 Ensure adequate ventilation, especially in confined areas.
 Minimize workplace exposure concentrations.
 Apply measures to prevent dust explosions.
 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).

Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection

Material : Nitrile rubber
 Break through time : 240 - < 480 min
 Glove thickness : 0.12 mm
 Directive : DIN EN 374

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Protective index : Class 5

Material : Nitrile rubber
Break through time : > 480 min
Glove thickness : 0.38 mm
Directive : DIN EN 374
Protective index : Class 6

Material : butyl-rubber
Break through time : > 480 min
Glove thickness : 0.3 mm
Directive : DIN EN 374
Protective index : Class 6

Material : Fluorinated rubber
Break through time : > 480 min
Glove thickness : 0.7 mm
Directive : DIN EN 374
Protective index : Class 6

Remarks : Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Eye protection : Wear the following personal protective equipment:
Safety goggles

Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Hygiene measures : Ensure that eye flushing systems and safety showers are located close to the working place.
When using do not eat, drink or smoke.
Wash contaminated clothing before re-use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : powder
Color : No data available
Odor : formaldehyde-like
Odor Threshold : No data available
pH : No data available

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Melting point/freezing point : No data available

Initial boiling point and boiling range : No data available

Flash point : > 110 °C
Method: closed cup

Evaporation rate : Not applicable

Flammability (solid, gas) : Not classified as a flammability hazard

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapor pressure : Not applicable

Relative vapor density : Not applicable

Relative density : No data available

Solubility(ies)
Water solubility : No data available

Partition coefficient: n-octanol/water : Not applicable

Autoignition temperature : ca. 400 °C
Method: DIN 51794

Decomposition temperature : No data available

Viscosity
Viscosity, kinematic : Not applicable

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Heat of combustion : > 34 kJ/g

Dust explosion class : St1

Particle size : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

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Possibility of hazardous reactions : Dust can form an explosive mixture in air.
Can react with strong oxidizing agents.
Hazardous decomposition products will be formed at elevated temperatures.

Conditions to avoid : None known.

Incompatible materials : Oxidizing agents

Hazardous decomposition products

Thermal decomposition : Formaldehyde
Methanol

SECTION 11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate: 3,798 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 200 mg/l
Exposure time: 4 h
Test atmosphere: vapor
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Ingredients:**Silica gel, precipitated, crystalline free:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401
Remarks: Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat): > 0.69 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg
Remarks: Based on data from similar materials

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Methanol:

- Acute oral toxicity : Acute toxicity estimate (Humans): 300 mg/kg
Method: Expert judgment
- Acute inhalation toxicity : Acute toxicity estimate: 3 mg/l
Exposure time: 4 h
Test atmosphere: vapor
Method: Expert judgment
Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI
- Acute dermal toxicity : Acute toxicity estimate (Humans): 300 mg/kg
Method: Expert judgment

Skin corrosion/irritation

Not classified based on available information.

Ingredients:**Silica gel, precipitated, crystalline free:**

Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation
Remarks: Based on data from similar materials

Methanol:

Species: Rabbit
Result: No skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Ingredients:**Silica gel, precipitated, crystalline free:**

Species: Rabbit
Result: No eye irritation
Method: OECD Test Guideline 405
Remarks: Based on data from similar materials

Methanol:

Species: Rabbit
Result: No eye irritation

Respiratory or skin sensitization**Skin sensitization**

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

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Ingredients:**Methanol:**

Test Type: Maximization Test
 Routes of exposure: Skin contact
 Species: Guinea pig
 Result: negative

Germ cell mutagenicity

Not classified based on available information.

Ingredients:**Silica gel, precipitated, crystalline free:**

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
 Result: negative
 Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Rodent dominant lethal test (germ cell) (in vivo)
 Species: Rat
 Application Route: Ingestion
 Result: negative
 Remarks: Based on data from similar materials

Methanol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
 Method: OECD Test Guideline 471
 Result: negative

: Test Type: In vitro mammalian cell gene mutation test
 Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
 Species: Mouse
 Application Route: Intraperitoneal injection
 Result: negative

Carcinogenicity

Not classified based on available information.

Ingredients:**Silica gel, precipitated, crystalline free:**

Species: Rat
 Application Route: Ingestion
 Exposure time: 103 weeks
 Result: negative
 Remarks: Based on data from similar materials

Methanol:

Species: Mouse
 Application Route: inhalation (vapor)

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Exposure time: 18 Months
Result: negative

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Ingredients:**Silica gel, precipitated, crystalline free:**

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Methanol:

Effects on fertility : Test Type: Fertility/early embryonic development
Species: Mouse
Application Route: Ingestion
Result: negative

Effects on fetal development : Test Type: Embryo-fetal development
Species: Mouse
Application Route: Ingestion
Result: positive
Remarks: The effects were seen only at maternally toxic doses.

STOT-single exposure

Not classified based on available information.

Ingredients:**Methanol:**

Target Organs: Eyes, Central nervous system
Assessment: Causes damage to organs.

STOT-repeated exposure

Not classified based on available information.

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Repeated dose toxicity**Ingredients:****Silica gel, precipitated, crystalline free:**

Species: Rat
NOAEL: > 4,500 mg/kg
Application Route: Ingestion
Exposure time: 90 Days
Remarks: Based on data from similar materials

Methanol:

Species: Rat
NOAEL: 1.06 mg/l
Application Route: inhalation (vapor)
Exposure time: 90 Days

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Ingredients:****Silica gel, precipitated, crystalline free:**

Toxicity to fish : LL50 (Danio rerio (zebra fish)): > 10,000 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
Remarks: Based on data from similar materials

Toxicity to daphnia and other : EL50 (Daphnia magna (Water flea)): > 1,000 mg/l
aquatic invertebrates : Exposure time: 24 h
Method: OECD Test Guideline 202
Remarks: Based on data from similar materials

Toxicity to algae : EL50 (Scenedesmus subspicatus): > 10,000 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

Methanol:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 15,400 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l
aquatic invertebrates : Exposure time: 48 h

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 22,000 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 201

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Toxicity to fish (Chronic toxicity) : NOEC (Oryzias latipes (Orange-red killifish)): 15,800 mg/l
Exposure time: 200 h

Toxicity to microorganisms : IC50: > 1,000 mg/l
Exposure time: 3 h

Persistence and degradability**Ingredients:****Methanol:**

Biodegradability : Result: Readily biodegradable.
Biodegradation: 95 %
Exposure time: 20 d

Bioaccumulative potential**Ingredients:****Methanol:**

Bioaccumulation : Species: Leuciscus idus (Golden orfe)
Bioconcentration factor (BCF): < 10

Partition coefficient: n-octanol/water : log Pow: -0.77

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : Dispose of in accordance with local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
If not otherwise specified: Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION**International Regulations****UNRTDG**

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

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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**

| Ingredients | CAS-No. | Component RQ (lbs) | Calculated product RQ (lbs) |
|--------------|---------|--------------------|-----------------------------|
| Formaldehyde | 50-00-0 | 100 | 111111 |
| Methanol | 67-56-1 | 5000 | * |

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

| Ingredients | CAS-No. | Component RQ (lbs) | Calculated product RQ (lbs) |
|--------------|---------|--------------------|-----------------------------|
| Formaldehyde | 50-00-0 | 100 | 111111 |

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

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

SARA 311/312 Hazards : Fire Hazard

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.

US State Regulations**Pennsylvania Right To Know**

1,3,5-Triazine-2,4,6-Triamine, Polymer With Formaldehyde, 68002-20-0
 Methylated
 Silica gel, precipitated, crystalline free 112926-00-8
 Methanol 67-56-1
 Formaldehyde 50-00-0

California Prop. 65

WARNING! This product contains a chemical known in the State of California to cause cancer.

Formaldehyde 50-00-0

WARNING: This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

Methanol 67-56-1

California Permissible Exposure Limits for Chemical Contaminants

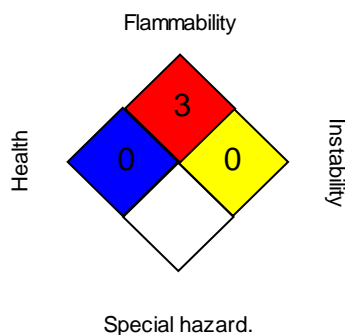
Silica gel, precipitated, crystalline free 112926-00-8

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

| | | |
|-----------|---|--|
| TSCA | : | All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption. |
| AICS | : | All ingredients listed or exempt. |
| DSL | : | All chemical substances in this product comply with the CEPA 1999 and NSNR and are on or exempt from listing on the Canadian Domestic Substances List (DSL). |
| ENCS/ISHL | : | All components are listed on ENCS/ISHL or exempted from inventory listing. |
| KECI | : | All ingredients listed, exempt or notified. |
| PICCS | : | All ingredients listed or exempt. |
| IECSC | : | All ingredients listed or exempt. |
| NZIoC | : | All ingredients listed or exempt. |

SECTION 16. OTHER INFORMATION**Further information****NFPA:****HMIS® IV:**

| | | |
|------------------------|---|----------|
| HEALTH | / | 1 |
| FLAMMABILITY | | 3 |
| PHYSICAL HAZARD | | 0 |

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

| | | |
|-----------|---|--|
| ACGIH | : | USA. ACGIH Threshold Limit Values (TLV) |
| ACGIH BEI | : | ACGIH - Biological Exposure Indices (BEI) |
| NIOSH REL | : | USA. NIOSH Recommended Exposure Limits |
| OSHA CARC | : | OSHA Specifically Regulated Chemicals/Carcinogens |
| OSHA Z-1 | : | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| OSHA Z-3 | : | USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts |

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| ACGIH / TWA | : | 8-hour, time-weighted average |
| ACGIH / STEL | : | Short-term exposure limit |
| ACGIH / C | : | Ceiling limit |
| NIOSH REL / TWA | : | Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek |
| NIOSH REL / ST | : | STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday |
| NIOSH REL / C | : | Ceiling value not be exceeded at any time. |
| OSHA CARC / PEL | : | Permissible exposure limit (PEL) |
| OSHA CARC / STEL | : | Excursion limit |
| OSHA Z-1 / TWA | : | 8-hour time weighted average |
| OSHA Z-3 / TWA | : | 8-hour time weighted average |

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

| | | |
|--|---|---|
| Sources of key data used to compile the Material Safety Data Sheet | : | Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, http://echa.europa.eu/ |
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| Revision Date | : | 03/31/2017 |
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Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

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| Version | Revision Date: | SDS Number: | Date of last issue: 11/30/2016 |
| 3.2 | 03/31/2017 | 8004-00009 | Date of first issue: 08/20/2014 |

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