

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

- Trade name TOLCIDE PS 20 A
- FIFRA Registration number 4564-18

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

- FIFRA regulated use only.
- Biocidal product

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

Solvay USA Inc.,
NOVECARE
504 Carnegie Center
Princeton, NJ, 08540, US
Telephone Number: 800-973-7873

1.4 Emergency telephone

FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT CONTACT: CHEMTREC 800-424-9300 within the United States and Canada, or 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)**

Acute toxicity, Category 3
Serious eye damage, Category 1
Skin sensitization, Category 1
Reproductive toxicity, Category 2

H331: Toxic if inhaled.
H318: Causes serious eye damage.
H317: May cause an allergic skin reaction.
H361: Suspected of damaging fertility or the unborn child.

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

- Danger

Hazard Statements

- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H331 Toxic if inhaled.
- H361 Suspected of damaging fertility or the unborn child.

- First responder needs to protect himself.
- Place affected apparel in a sealed bag for subsequent decontamination.
- Plan first aid action before beginning work with this product.
- In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

In case of inhalation

- Move to fresh air.
- Keep at rest.
- Consult a physician.

In case of skin contact

- Take off contaminated clothing and shoes immediately.
- Wash off with plenty of water.
- Wash immediately and thoroughly for a prolonged period (at least 15 minutes).
- Get medical attention if irritation develops and persists.

In case of eye contact

- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- Get immediate medical advice/ attention.

In case of ingestion

- Do not induce vomiting without medical advice.
- If victim is conscious:
 - Rinse mouth with water.
 - Keep at rest.
- Never give anything by mouth to an unconscious person.
- Do not leave the victim unattended.
- Vomiting may occur spontaneously
- Risk of product entering the lungs on vomiting after ingestion.
- Lay victim on side.
- Get immediate medical advice/ attention.

4.2 Most important symptoms and effects, both acute and delayed**Symptoms**

- Lachrymation
- Ingestion may provoke the following symptoms:
 - Nausea
 - Liver disorders

Effects

- Skin contact may aggravate existing skin disease

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

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.
- Treat symptomatically.
- There is no specific antidote available.

SECTION 5: Firefighting measures**Flash point**

Not applicable (aqueous liquid).

Autoignition temperature no data available

Flammability / Explosive limit no data available

5.1 Extinguishing media

Suitable extinguishing media

- In case of fire, use water/water spray/water jet/carbon dioxide/sand/foam/alcohol resistant foam/chemical powder for extinction.

Unsuitable extinguishing media

- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting

- Harmful or toxic vapors are released.
- Do not allow run-off from fire fighting to enter drains or water courses.
- Under fire conditions:
 - Will burn
 - (following evaporation of water)
 - Hazardous decomposition products
 - Phosphorus trihydride (phosphine)

Hazardous combustion products:

- Oxides of phosphorus
- Sulfur oxides
- Carbon oxides

5.3 Advice for firefighters

Special protective equipment for fire-fighters

- In the event of fire, wear self-contained breathing apparatus.
- Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing
- Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

Specific fire fighting methods

- Standard procedure for chemical fires.

Further information

- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Do not breathe spray.
- Avoid contact with the skin and the eyes.
- Use personal protective equipment.
- Ensure adequate ventilation.
- Evacuate personnel to safe areas.

6.2 Environmental precautions

- Do not allow uncontrolled discharge of product into the environment.
- Contain the spilled material by diking.
- Do not flush into surface water or sanitary sewer system.
- Do not let product enter drains.
- Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies

6.3 Methods and materials for containment and cleaning up

Recovery

- Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
- Keep in suitable, closed containers for disposal.
- Never return spills in original containers for re-use.

Decontamination / cleaning

- Wash nonrecoverable remainder with large amounts of water.
- Recover the cleaning water for subsequent disposal.
- Decontaminate tools, equipment and personal protective equipment in a segregated area.

Disposal

- Dispose of contents/ container to an approved waste disposal plant.
- Dispose of in accordance with local regulations.

6.4 Reference to other sections

- For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Provide adequate ventilation.
- Avoid exposure - obtain special instructions before use.
- This product must only be handled by skilled operators.
- Reduce the duration of exposure to the minimum required.
- Avoid formation of aerosol.
- Avoid the formation or spread of mists in the atmosphere.
- Handle in accordance with good industrial hygiene and safety practice.
- Use only with adequate ventilation/personal protection.
- Do NOT handle without gloves.

Hygiene measures

- Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials:
 - 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
 - 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
 - 3) Wash exposed skin promptly to remove accidental splashes or contact with material.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions

- Prevent unauthorized access.
- Keep container tightly closed in a dry and well-ventilated place.
- Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.

- Keep in a dry, cool and well-ventilated place.
- Keep container tightly closed.

- Keep away from incompatible materials to be indicated by the manufacturer
- Keep away from open flames, hot surfaces and sources of ignition.

- Keep away from: Do not mix with incompatible materials (See list, section 10).

Packaging material**Suitable material**

- Plastic materials (polyethylene).

Unsuitable material

- Ordinary steel.

Remarks

- Polyethylene or polypropylene drums.
- Stainless steel

Requirements for storage rooms and vessels

- No decomposition if stored and applied as directed.

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**Components with workplace occupational exposure limits**

Ingredients	Value type	Value	Basis
Tetrakis(Hydroxymethyl) Phosphonium Sulfate	TWA	2 mg/m ³	American Conference of Governmental Industrial Hygienists

8.2 Exposure controls

Control measures

Engineering measures

- Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures :
- Avoid splashes.
- Effective exhaust ventilation system
- Facilities and equipment easily cleanable.
- Separate rooms are required for washing, showering and changing clothes.

Individual protection measures

Respiratory protection

- When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.
- Use a respirator with an approved filter if a risk assessment indicates this is necessary.

Hand protection

- Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
- Gloves must be inspected prior to use.
- Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Suitable material

- Polyvinyl alcohol or nitrile- butyl-rubber gloves

Eye protection

- Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.
- Eye contact should be prevented through the use of:
 - Safety glasses with side-shields
 - In case of contact through splashing:
 - Wear face-shield and protective suit.

Skin and body protection

- Wear suitable protective clothing, gloves and eye/face protection.
- Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Remove and wash contaminated apparel.

Hygiene measures

- Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials:
 - 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
 - 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
 - 3) Wash exposed skin promptly to remove accidental splashes or contact with material.

Protective measures

- Always have on hand a first-aid kit, together with proper instructions.
- Ensure that eyewash stations and safety showers are close to the workstation location.
- The protective equipment must be selected in accordance with current local standards and in cooperation with the supplier of the protective equipment.
- Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards, and/or risks that may occur during use.

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

<u>Appearance</u>	<u>Physical state:</u> liquid <u>Color:</u> pale yellow to pale pink
<u>Odor</u>	characteristic
<u>Odor Threshold</u>	no data available
<u>Molecular weight</u>	406.3 g/mol
<u>pH</u>	3.0 - 6.0
<u>Melting point/freezing point</u>	<u>Freezing point:</u> 32 °F (0 °C)
<u>Initial boiling point and boiling range</u>	<u>Boiling point/boiling range:</u> 227.3 °F (108.5 °C) (759.81 mmHg (1,013.00 hPa))
<u>Flash point</u>	Not applicable (aqueous liquid).
<u>Evaporation rate (Butylacetate = 1)</u>	no data available
<u>Flammability (solid, gas)</u>	no data available
<u>Flammability (liquids)</u>	no data available
<u>Flammability / Explosive limit</u>	no data available
<u>Autoignition temperature</u>	no data available
<u>Vapor pressure</u>	no data available
<u>Vapor density</u>	no data available
<u>Density</u>	1.08 - 1.13 g/cm ³ (68 °F (20 °C))
<u>Relative density</u>	no data available
<u>Solubility</u>	<u>Water solubility:</u> completely miscible <u>Solubility in other solvents:</u> not determined

<u>Partition coefficient: n-octanol/water</u>	log Pow: -9.8 Structure-activity relationship (SAR), estimated
<u>Decomposition temperature</u>	> 320 °F (160 °C)
<u>Viscosity</u>	no data available
<u>Explosive properties</u>	no data available
<u>Oxidizing properties</u>	no data available

9.2 Other information

no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

- Stable at normal ambient temperature and pressure.

10.2 Chemical stability

- Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

- No decomposition if stored and applied as directed.

Polymerization

- Hazardous polymerization does not occur.

10.4 Conditions to avoid

- No dangerous reaction known under conditions of normal use.

10.5 Incompatible materials

- Strong acids
- Strong bases
- Strong oxidizing agents
- Strong reducing agents.

10.6 Hazardous decomposition products

- Oxides of phosphorus
- Sulfur oxides
- Hydrogen
- Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).
- PHOSPHINE

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

LD50 : 575 mg/kg - Rat , for males and females
 Unpublished internal reports
 THPS 75%

Not classified as harmful if swallowed
 According to the classification criteria for mixtures.

Acute inhalation toxicity

LC50 - 4 h (Dust) 0.59 mg/l - Rat , for males and females
 Published data
 THPS 75%

Humans
 Symptoms: Watering of the eyes

Harmful by inhalation.
 According to the classification criteria for mixtures.
 According to the data on the components

Acute dermal toxicity

LD50 > 2,000 mg/kg - Rat , for males and females
 Unpublished internal reports
 THPS 75%

Not classified as harmful by contact with skin
 According to the classification criteria for mixtures.
 According to the data on the components

Acute toxicity (other routes of administration)

no data available

Skin corrosion/irritation

Rabbit
 No skin irritation
 Method: OECD Test Guideline 404
 Unpublished internal reports
 THPS 75%

Serious eye damage/eye irritation

Risk of serious damage to eyes.
 Method: OECD Test Guideline 405
 Extremely irritating to rabbits on ocular application.
 Unpublished internal reports
 THPS 75%

Respiratory or skin sensitization

Magnusson and Kligman method
 May cause sensitization by skin contact.
 Unpublished internal reports
 THPS 75%

Mutagenicity**Genotoxicity in vitro**

Product is not considered to be genotoxic

Mutagenicity (Salmonella typhimurium - reverse mutation assay)
with and without metabolic activation
negative
Unpublished internal reports
THPS 75%

Mutagenicity (in vitro mammalian cytogenetic test)
Strain: CHO
with and without metabolic activation
positive
Unpublished internal reports
THPS 75%

UDS test
Strain: Hepatocyte (primary culture)
negative
Unpublished internal reports
THPS 75%

Mouse lymphoma test / TK
with and without metabolic activation
positive
Unpublished internal reports
THPS 75%

Genotoxicity in vivo

Product is not considered to be genotoxic

Rodent dominant Lethal test - Rat
negative
Unpublished internal reports
THPS 75%

In vivo micronucleus test - Mouse
negative
Unpublished internal reports
THPS 75%

Carcinogenicity

Rat
Oral exposure
Animal testing did not show any carcinogenic effects.
Published data
THPS 75%

Mouse
Oral exposure
Animal testing did not show any carcinogenic effects.
Published data
THPS 75%

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

NTP
IARC
OSHA

ACGIH

Toxicity for reproduction and development**Toxicity to reproduction / fertility**

Fertility study 2 generations - Rat
 Oral exposure
 no impairment of fertility has been observed
 Unpublished internal reports
 THPS 75%

Developmental Toxicity/Teratogenicity

Rat
 Oral exposure
 NOEL teratogenicity: 30 mg/kg
 NOEL maternal: 15 mg/kg
 Unpublished internal reports
 THPS 75%

Rabbit
 Oral exposure
 NOEL teratogenicity: 18 mg/kg
 NOEL maternal: 18 mg/kg
 Effects on development were observed
 May cause harm to the unborn child.
 Unpublished internal reports
 THPS 75%

STOT**STOT-single exposure**

Tetrakis(Hydroxymethyl) Phosphonium
 Sulfate

The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria.
 internal evaluation

STOT-repeated exposure

Tetrakis(Hydroxymethyl) Phosphonium
 Sulfate

The substance or mixture is not classified as specific target organ toxicant, repeated exposure according to GHS criteria.
 Expert judgment

Oral exposure 90 Days - Rat , for males and females
 NOEL: 1 mg/kg
 Liver toxicity
 Unpublished internal reports
 THPS 75%

Neurological effects

Screening biochemistry test kit for cholinesterase activity inhibition, The product does not induce inhibition, THPS 75%

Experience with human exposure**Experience with human exposure :** Not classified as irritating to respiratory system.**Inhalation****CMR effects****Carcinogenicity**

Tetrakis(Hydroxymethyl) Phosphonium Sulfate The product is not considered to be carcinogenic.

Mutagenicity

Tetrakis(Hydroxymethyl) Phosphonium Sulfate not mutagenic

Teratogenicity

Tetrakis(Hydroxymethyl) Phosphonium Sulfate Suspected human reproductive toxicant (fertility and/or development)

Aspiration toxicity

no data available

SECTION 12: Ecological information**12.1 Toxicity****Aquatic Compartment****Acute toxicity to fish**LC50 - 96 h : 119 mg/l - Oncorhynchus mykiss (rainbow trout)
Unpublished internal reports
THPS 75%LC50 - 96 h : 93 mg/l - Lepomis macrochirus (Bluegill sunfish)
Unpublished internal reports
THPS 75%**Acute toxicity to daphnia and other aquatic invertebrates.**EC50 - 48 h : 15.1 mg/l - Daphnia magna (Water flea)
THPS 75%
Unpublished internal reportsEC50 - 48 h : 0.4 mg/l - Crustacean: Acartia tonsa
THPS 75%
Unpublished internal reports**Toxicity to aquatic plants**EC50 - 96 h : 0.66 mg/l - Pseudokirchneriella subcapitata (microalgae)
THPS 75%
Unpublished internal reportsEC50 - 96 h : 0.16 mg/l - Skeletonema costatum (marine diatom)
THPS 75%
Unpublished internal reportsNOEC - 96 h : 0.059 mg/l - Skeletonema costatum (marine diatom)
THPS 75%
Unpublished internal reports

Toxicity to microorganisms	EC50 - 3 h : 24 mg/l - activated sludge THPS 75% Unpublished internal reports
Chronic toxicity to fish Tetrakis(Hydroxymethyl) Phosphonium Sulfate	NOEC: 0.83 mg/l - 32 Days - Pimephales promelas (fathead minnow) flow-through test Method: OECD Test Guideline 210 Harmful to fish with long lasting effects. Unpublished internal reports
Chronic toxicity to daphnia and other aquatic invertebrates.	
Tetrakis(Hydroxymethyl) Phosphonium Sulfate	NOEC: 0.0242 mg/l - 21 Days - Daphnia magna (Water flea) semi-static test Method: OECD Test Guideline 202 Toxic to aquatic invertebrates with long lasting effects. Unpublished internal reports
Chronic Toxicity to aquatic plants	no data available

Sediment compartment

Toxicity to benthic organisms Tetrakis(Hydroxymethyl) Phosphonium Sulfate	EC50: 619 mg/kg dry weight (d.w.) Exposure duration: 5 Days Species: Abra alba Unpublished internal reports
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Terrestrial Compartment

Toxicity to soil dwelling organisms Tetrakis(Hydroxymethyl) Phosphonium Sulfate	LC50: 960 mg/kg - 14 Days - Eisenia fetida (earthworms) Method: OECD Test Guideline 207
Toxicity to terrestrial plants Tetrakis(Hydroxymethyl) Phosphonium Sulfate	EC50: 102 mg/kg - 14 Days - Medicago sativa Method: OECD Test Guideline 208 Published data Unpublished internal reports Unpublished reports

M-Factor

Tetrakis(Hydroxymethyl) Phosphonium Sulfate	Acute aquatic toxicity = 1 (according to the Globally Harmonized System (GHS))
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12.2 Persistence and degradability**Abiotic degradation**

Stability in water

Tetrakis(Hydroxymethyl) Phosphonium Sulfate DT50: Half-life value: 131 Days (25 °C)
anaerobic
pH: 5.0
Method: according to a standardized method
Unpublished internal reports,
DT50: Half-life value: 72 Days (25 °C)
anaerobic
pH: 7.0
Method: according to a standardized method
Unpublished internal reports,
DT50: Half-life value: 7 Days (25 °C)
anaerobic
pH: 9.0
Method: according to a standardized method
Unpublished internal reports,

Photodegradation

Tetrakis(Hydroxymethyl) Phosphonium Sulfate Sensitizer: OH
Concentration sensitizer in molecule/cm³: 1,500,000 1/cm³
Rate constant in cm³ / molecule*s: 2.7E-11 cm³/s
Half-life indirect photolysis: 0.4 Days
Structure-activity relationship (SAR)
Published data

Physical- and photo-chemical elimination

no data available

Biodegradation**Biodegradability**

Tetrakis(Hydroxymethyl) Phosphonium Sulfate Ultimate aerobic biodegradability
Method: Simulation study
70 % - 21 d
Readily biodegradable.
US EPA FIFRA, Subdivision N, § 162-4
Unpublished internal reports

anaerobic
Method: Simulation study
60 % - 30 d
US EPA FIFRA, Subdivision N, § 162-4
Unpublished internal reports

aerobic
Method: Simulation study
69.6 % - 21 Days
The substance fulfills the criteria for ultimate aerobic biodegradability and ready biodegradability
Inoculum: 30g soil+ 90 mL well water
THPS 75%
CO₂ evolution test
Unpublished internal reports

Degradability assessment

Tetrakis(Hydroxymethyl) Phosphonium Sulfate The product is considered to be rapidly degradable in the environment

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)

Tetrakis(Hydroxymethyl) Phosphonium Sulfate Log Koc: 2.2
Moderately mobile in soils
Unpublished internal reports

Adsorption/Soil
Koc: 153
Method: OECD Test Guideline 106
THPS 75%
Mobile in soils
Unpublished internal reports

Known distribution to environmental compartments no data available

12.5 Results of PBT and vPvB assessment

Tetrakis(Hydroxymethyl) Phosphonium Sulfate This substance is not considered to be persistent, bioaccumulating and toxic (PBT).
This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects no data available

Ecotoxicity assessment

Acute aquatic toxicity

Tetrakis(Hydroxymethyl) Phosphonium Sulfate Very toxic to aquatic life.

Chronic aquatic toxicity

Tetrakis(Hydroxymethyl) Phosphonium Sulfate Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product Disposal

- Chemical additions, processing or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult

state and local regulations regarding the proper disposal of this material.

Waste Code

- Environmental Protection Agency
- Hazardous Waste – NO

Advice on cleaning and disposal of packaging

- Take preliminary precautions based on the dangerous properties of the product.
- Empty the packaging completely prior to disposal.
- Empty containers should be taken to an approved waste handling site for recycling or disposal.
- The user's attention is drawn to the possible existence of local regulations regarding disposal.

SECTION 14: Transport information

DOT

not regulated

TDG

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	- This product is regulated under the United States Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).
Canadian Domestic Substances List (DSL)	- All components of this product are on the Canadian DSL
Australia Inventory of Chemical Substances (AICS)	- On the inventory, or in compliance with the inventory
Japan. CSCL - Inventory of Existing and New Chemical Substances	- Not in compliance with the inventory
Korea. Korean Existing Chemicals Inventory (KECI)	- Not in compliance with the inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	- Not in compliance with the inventory

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

Fire Hazard	no
Reactivity Hazard	no
Sudden Release of Pressure Hazard	no
Acute Health Hazard	yes
Chronic Health Hazard	yes

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)

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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

Ingredients	CAS-No.	Reportable quantity
Formaldehyde	50-00-0	100 lb

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

Ingredients	CAS-No.	Reportable quantity
Formaldehyde	50-00-0	100 lb

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

Ingredients	CAS-No.	Reportable quantity
Formaldehyde	50-00-0	100 lb
Acrylic Acid	79-10-7	5000 lb

Calculated RQ exceeds reasonably attainable upper limit.

15.3 State Regulations**US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)**

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

Ingredients	CAS-No.
Formaldehyde	50-00-0

SECTION 16: Other information**NFPA (National Fire Protection Association) - Classification**

Health	2 moderate
Flammability	0 minimal
Instability or Reactivity	1 slight

HMIS (Hazardous Materials Identification System (Paint & Coating)) - Classification

Health	2 moderate
Flammability	0 minimal
Reactivity	1 slight
PPE	Determined by User; dependent on local conditions

Further information

- Product evaluated under the US GHS format.

Date Prepared: 07/12/2016

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

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.