# SECTION 1: Kit identification

## 1.1 Product identifier

<table>
<thead>
<tr>
<th>Trade name</th>
<th>CFS-F SOL; CP 620</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>BU Fire Protection</td>
</tr>
</tbody>
</table>

## 1.2 Details of the supplier of the Safety information for 2-Component-products

<table>
<thead>
<tr>
<th>Hilti, Inc.</th>
<th>Legacy Tower, Suite 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7250 Dallas Parkway</td>
</tr>
<tr>
<td></td>
<td>75024 Plano - USA</td>
</tr>
<tr>
<td></td>
<td>T +1 9724035800</td>
</tr>
<tr>
<td></td>
<td>1-800-879-8000 toll free - F +1 918 254 0522</td>
</tr>
</tbody>
</table>

# SECTION 2: General information

A SDS for each of these components is included. Please do not separate any component SDS from this cover page.

# SECTION 3: Kit contents

## Classification of the Product

<table>
<thead>
<tr>
<th>GHS-US classification</th>
<th>Acute Tox. 4 (Inhalation)</th>
<th>H332 - Harmful if inhaled.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Skin Irrit. 2</td>
<td>H315 - Causes skin irritation.</td>
</tr>
<tr>
<td></td>
<td>Eye Irrit. 2A</td>
<td>H319 - Causes serious eye irritation.</td>
</tr>
<tr>
<td></td>
<td>Resp. Sens. 1</td>
<td>H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.</td>
</tr>
<tr>
<td></td>
<td>Skin Sens. 1</td>
<td>H317 - May cause an allergic skin reaction.</td>
</tr>
<tr>
<td></td>
<td>Carc. 2</td>
<td>H351 - Suspected of causing cancer.</td>
</tr>
<tr>
<td></td>
<td>Repr. 2</td>
<td>H361 - Suspected of damaging fertility or the unborn child.</td>
</tr>
<tr>
<td></td>
<td>STOT SE 3</td>
<td>H335 - May cause respiratory irritation.</td>
</tr>
<tr>
<td></td>
<td>STOT RE 2</td>
<td>H373 - May cause damage to organs through prolonged or repeated exposure.</td>
</tr>
<tr>
<td></td>
<td>Aquatic Chronic 3</td>
<td>H412 - Harmful to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

## Label elements

### GHS-US labelling

Hazard pictograms (GHS-US)

- GHS07
- GHS08

### Signal word (GHS-US)

Danger

### Hazardous ingredients

- 4,4'-diphenylmethanediisocyanate, isomers and homologues; zinc borate

### Hazard statements (GHS-US)

- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H319 - Causes serious eye irritation.
- H332 - Harmful if inhaled.
- H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
CFS-F SOL; CP 620
Safety information for 2-Component-products

H335 - May cause respiratory irritation.
H351 - Suspected of causing cancer.
H361 - Suspected of damaging fertility or the unborn child.
H373 - May cause damage to organs through prolonged or repeated exposure.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (GHS-US)

P260 - Do not breathe vapours.
P280 - Wear eye protection, protective clothing, protective gloves.
P284 - [In case of inadequate ventilation] wear respiratory protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P342+P311 - If experiencing respiratory symptoms: Call a doctor, a POISON CENTER.

Additional information

<table>
<thead>
<tr>
<th>Name</th>
<th>General description</th>
<th>Quantity</th>
<th>Unit</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFS-F SOL / CP 620, A (RoW)</td>
<td></td>
<td>1</td>
<td>pcs (pieces)</td>
<td>Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Repir. 2, H361</td>
</tr>
</tbody>
</table>

SECTION 4: General advice

General advice
For professional users only

SECTION 5: Safe handling advice

Environmental precautions
Avoid release to the environment.
Storage conditions
Store in a well-ventilated place.
Keep cool.
Precautions for safe handling
Do not handle until all safety precautions have been read and understood.
Wear personal protective equipment
Do not breathe vapours.
Use only outdoors or in a well-ventilated area.
Avoid contact with skin and eyes
In case of inadequate ventilation wear respiratory protection.
Methods for cleaning up
Take up liquid spill into absorbent material
Notify authorities if product enters sewers or public waters

SECTION 6: First aid measures

First-aid measures after eye contact
Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion
Call a poison center or a doctor if you feel unwell
First-aid measures after inhalation
Wash with plenty of water/…
If skin irritation or rash occurs: Get medical advice/attention.
CFS-F SOL; CP 620
Safety information for 2-Component-products

First-aid measures general
Take off contaminated clothing.
If you feel unwell, seek medical advice (show the label where possible)

Symptoms/effects after eye contact
Eye irritation

Symptoms/effects after inhalation
May cause respiratory irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Symptoms/effects after skin contact
Irritation
May cause an allergic skin reaction.

Other medical advice or treatment
Treat symptomatically

SECTION 7: Fire fighting measures

Protection during firefighting
Self-contained breathing apparatus
Complete protective clothing

Hazardous decomposition products in case of fire
Toxic fumes may be released
Carbon dioxide
Carbon monoxide

SECTION 8: Other information

No data available
SECTION 1: Identification

1.1. Identification
Product form: Mixture
Trade name: CFS-F SOL / CP 620, A
Product code: BU Fire Protection

1.2. Relevant identified uses of the substance or mixture and uses advised against
No additional information available

1.3. Details of the supplier of the safety data sheet
Supplier: Hilti, Inc.
Legacy Tower, Suite 1000
7250 Dallas Parkway
75024 Plano - USA
T +1 9724035800
1-800-879-8000 toll free - F +1 918 254 0522

Department issuing data specification sheet: Hilti AG
Feldkircherstraße 100
9494 Schaan - Liechtenstein
T +423 234 2111
chemicals.hse@hilti.com

1.4. Emergency telephone number
Emergency number: Chem-Trec
Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada)
Tel.: 703 527 3887 (Other countries)
+1 918 8723000
1-800-879-8000 toll free

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture
GHS-US classification:
Skin Irrit. 2  H315 - Causes skin irritation.
Eye Irrit. 2A  H319 - Causes serious eye irritation.
Repr. 2  H361 - Suspected of damaging fertility or the unborn child.

Full text of H statements: see section 16

2.2. Label elements
GHS-US labelling:
Hazard pictograms (GHS-US):

Signal word (GHS-US): Warning
Hazard statements (GHS-US):
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H361 - Suspected of damaging fertility or the unborn child.

Precautionary statements (GHS-US):
P280 - Wear eye protection, protective clothing, protective gloves.
P302+P352 - If on skin: Wash with plenty of water
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
2.3. Other hazards
No additional information available

2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylenediamine, propoxylated</td>
<td>(CAS-No.) 25214-63-5</td>
<td>25 - 40</td>
<td>Eye Irrit. 2A, H319</td>
</tr>
<tr>
<td>tris(2-chloro-1-methyl) ethyl phosphate</td>
<td>(CAS-No.) 13674-84-5</td>
<td>2.5 - 5</td>
<td>Acute Tox. 4 (Oral), H302</td>
</tr>
<tr>
<td>hexaboron dizinc undecaoxide</td>
<td>(CAS-No.) 12767-90-7</td>
<td>2.5 - 5</td>
<td>Repr. 2, H361, Aquatic Chronic 2, H411</td>
</tr>
<tr>
<td>2-(2-Dimethylaminoethoxy)-ethyl-methyl-amino(ethanol)</td>
<td>(CAS-No.) 83016-70-0</td>
<td>1 - 2.5</td>
<td>Acute Tox. 4 (Oral), H302, Skin Corr. 1B, H314, Aquatic Chronic 3, H412</td>
</tr>
</tbody>
</table>

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures
First-aid measures general IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)
Symptoms/effects after skin contact Irritation.
Symptoms/effects after eye contact Eye irritation.

4.3. Immediate medical attention and special treatment, if necessary
Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

5.2. Special hazards arising from the substance or mixture
Reactivity The product is non-reactive under normal conditions of use, storage and transport.

5.3. Advice for firefighters
Protection during firefighting Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
Emergency procedures Ventilate spillage area. Avoid contact with skin and eyes.

6.1.2. For emergency responders
Protective equipment Do not attempt to take action without suitable protective equipment. For further information refer to section 8: “Exposure controls/personal protection”.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections
For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Avoid contact with skin and eyes.
Hygiene measures Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions Store locked up. Store in a well-ventilated place. Keep cool.
Storage temperature 41 - 77 °F

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Chemical</th>
<th>ACGIH TWA (mg/m³)</th>
<th>ACGIH STEL (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylenediamine, propoxylated (25214-63-5)</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>tris(2-chloro-1-methylethyl) phosphate (13674-84-5)</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>2-(2-Dimethylaminoethoxy)-ethyl-methyl-aminoethanol (83016-70-0)</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>hexaboron dizinc undecaoxide (12767-90-7)</td>
<td>2 mg/m³ (Borate compounds, inorganic; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Inhalable fraction)</td>
<td>6 mg/m³ (Borate compounds, inorganic; USA; Short time value; TLV - Adopted Value; Inhalable fraction)</td>
</tr>
</tbody>
</table>
8.2. Exposure controls

Appropriate engineering controls: Ensure good ventilation of the work station.

Personal protective equipment:
- Safety glasses
- Protective clothing
- Gloves
- Protective gloves
- Wear suitable protective clothing
- [In case of inadequate ventilation] wear respiratory protection
- Avoid release to the environment

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state: Liquid
- Colour: Red
- Odour: There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour(s): No data available on odour Mild odour Characteristic odour Amine-like odour Almost odourless Alcohol odour Odourless
- Odour threshold: No data available
- pH: Not determined
- Melting point: Not applicable
- Boiling point: No data available
- Flash point: Not applicable
- Relative evaporation rate (butylacetate=1): No data available
- Flammability (solid, gas): No data available
- Explosive limits: No data available
- Explosive properties: No data available
- Oxidising properties: No data available
- Vapour pressure: No data available
- Relative density: No data available
- Relative vapour density at 20 °C: No data available
- Density:≈ 1.17 g/cm³
- Solubility: No data available
- Log Pow: No data available
- Auto-ignition temperature: No data available
- Decomposition temperature: No data available
- Viscosity: No data available
- Viscosity, kinematic: No data available
- Viscosity, dynamic: No data available

9.2. Other information

- VOC content: 15 mg/l EPA method 24 (CP 620, Comp. A + B)
SECTION 10: Stability and reactivity

10.1. Reactivity
The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid
None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials
No additional information available

10.6. Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Not classified</th>
</tr>
</thead>
<tbody>
<tr>
<td>tris(2-chloro-1-methylethyl) phosphate (13674-84-5)</td>
<td></td>
</tr>
<tr>
<td>LD50 oral rat</td>
<td>1150 - 1750 mg/kg bodyweight (Rat: Equivalent or similar to OECD 401; Experimental value; 1011-1824 mg/kg bodyweight: Rat: Experimental value)</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
<td>&gt; 2000 mg/kg (Rat; Experimental value)</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>&gt; 2000 mg/kg bodyweight (Rabbit; Experimental value; OECD 402: Acute Dermal Toxicity)</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>1150 mg/kg bodyweight</td>
</tr>
<tr>
<td>2-(2-(2-Dimethylaminoethoxy)-ethyl-methyl-amino)ethanol (83016-70-0)</td>
<td></td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>1364 mg/kg bodyweight</td>
</tr>
</tbody>
</table>

- Skin corrosion/irritation: Causes skin irritation.
- pH: Not determined
- Serious eye damage/irritation: Causes serious eye irritation.
- pH: Not determined
- Respiratory or skin sensitisation: Not classified
- Germ cell mutagenicity: Not classified
- Carcinogenicity: Not classified
- Reproductive toxicity: Suspected of damaging fertility or the unborn child.
- Specific target organ toxicity (single exposure): Not classified
- Specific target organ toxicity (repeated exposure): Not classified
- Aspiration hazard: Not classified
- Symptoms/effects after skin contact: Irritation.
- Symptoms/effects after eye contact: Eye irritation.
SECTION 12: Ecological information

12.1. Toxicity

Ecology - general Harmful to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Substance</th>
<th>LC50 fish 1</th>
<th>EC50 Daphnia 1</th>
<th>LC50 fish 2</th>
<th>Threshold limit algae 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>tris(2-chloro-1-methylethyl) phosphate (13674-84-5)</td>
<td>98 mg/l (96 h; Pimephales promelas; GLP)</td>
<td>65 - 335 mg/l (48 h; Daphnia magna; GLP)</td>
<td>56.2 mg/l (96 h; Brachydanio rerio)</td>
<td>73 mg/l (96 h; Selenastrum capricornutum; Growth rate)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance</th>
<th>LC50 fish 1</th>
<th>EC50 Daphnia 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>hexaboron dizinc undecaoxide (12767-90-7)</td>
<td>2.4 mg/l (LC50; 96 h)</td>
<td>76 mg/l (LC50; 48 h)</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Substance</th>
<th>Persistence and degradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>tris(2-chloro-1-methylethyl) phosphate (13674-84-5)</td>
<td>Not readily biodegradable in water. No (test)data on mobility of the substance available.</td>
</tr>
<tr>
<td>hexaboron dizinc undecaoxide (12767-90-7)</td>
<td>Biodegradability: not applicable. Adsorbs into the soil.</td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Substance</th>
<th>BCF fish 1</th>
<th>Log Pow</th>
<th>Bioaccumulative potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>tris(2-chloro-1-methylethyl) phosphate (13674-84-5)</td>
<td>0.8 - 4.6 (Cyprinus carpio; Test duration: 6 weeks)</td>
<td>2.59 (Experimental value)</td>
<td>Low potential for bioaccumulation (BCF &lt; 500).</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming No known effects from this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

<table>
<thead>
<tr>
<th>Waste treatment methods</th>
<th>Dispose of contents/container in accordance with licensed collector’s sorting instructions.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product/Packaging disposal recommendations</td>
<td>Dispose in a safe manner in accordance with local/national regulations.</td>
</tr>
</tbody>
</table>

SECTION 14: Transport information

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

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14.1. UN number

Not regulated for transport
### 14.2. UN proper shipping name

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

### 14.3. Transport hazard class(es)

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

### 14.4. Packing group

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

### 14.5. Environmental hazards

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dangerous for the environment : No</td>
<td>Dangerous for the environment : No</td>
<td>Dangerous for the environment : No</td>
<td>Dangerous for the environment : No</td>
</tr>
</tbody>
</table>

No supplementary information available

### 14.6. Special precautions for user

**- Overland transport**

No data available

**- Transport by sea**

No data available

**- Air transport**

No data available

**- Rail transport**

Carriage prohibited (RID) No

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

<table>
<thead>
<tr>
<th>Ethylenediamine, propoxylated (25214-63-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>XU - XU - indicates a substance exempt from reporting under the Inventory Update Reporting Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(C)).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2-(2-(2-Dimethylaminoethoxy)-ethyl-methyl-amino)ethanol (83016-70-0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P - P - indicates a commenced PMN substance.</td>
</tr>
</tbody>
</table>

#### 15.2. International regulations

**CANADA**

<table>
<thead>
<tr>
<th>Ethylenediamine, propoxylated (25214-63-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed on the Canadian DSL (Domestic Substances List)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>tris(2-chloro-1-methylethyl) phosphate (13674-84-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed on the Canadian DSL (Domestic Substances List)</td>
</tr>
</tbody>
</table>
CFS-F SOL / CP 620, A
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| 2-(2-(Dimethylaminoethoxy)-ethyl-methyl-amino)ethanol (83016-70-0) | Listed on the Canadian DSL (Domestic Substances List) |
| hexaboron dizinc undecaoxide (12767-90-7) | Listed on the Canadian DSL (Domestic Substances List) |

EU-Regulations
No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Skin Irrit. 2  H315
Eye Irrit. 2  H319
Repr. 2  H361
Aquatic Chronic 3  H412
Full text of hazard classes and H-statements : see section 16

National regulations
No additional information available

15.3. US State regulations
California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information
Revision date  12/19/2017

Full text of H-statements:

| H302  | Harmful if swallowed. |
| H314  | Causes severe skin burns and eye damage. |
| H315  | Causes skin irritation. |
| H319  | Causes serious eye irritation. |
| H361  | Suspected of damaging fertility or the unborn child. |
| H411  | Toxic to aquatic life with long lasting effects. |
| H412  | Harmful to aquatic life with long lasting effects. |

Indication of changes:

<table>
<thead>
<tr>
<th>Section</th>
<th>Changed item</th>
<th>Change</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2</td>
<td>Precautionary statements (GHS-US)</td>
<td>Modified</td>
<td></td>
</tr>
</tbody>
</table>

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.
SECTION 1: Identification

1.1. Identification

Product form: Mixture
Trade name: CFS-F SOL / CP 620, B
Product code: BU Fire Protection

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

No additional information available

1.3. Details of the supplier of the safety data sheet

Hilti, Inc.
Legacy Tower, Suite 1000
7250 Dallas Parkway
75024 Plano - USA
T +1 9724035800
1-800-879-8000 toll free - F +1 918 254 0522

Supplier
Hilti, Inc.
Legacy Tower, Suite 1000
7250 Dallas Parkway
75024 Plano - USA
T +1 9724035800
1-800-879-8000 toll free - F +1 918 254 0522

Department issuing data specification sheet
Hilti AG
Feldkircherstraße 100
9494 Schaan - Liechtenstein
T +423 234 2111
chemicals.hse@hilti.com

1.4. Emergency telephone number

Emergency number: Chem-Trec
Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada)
Tel.: 703 527 3887 (Other countries)
+1 918 8723000
1-800-879-8000 toll free

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

| Acute Tox. 4 (Inhalation) | H332 - Harmful if inhaled. |
| Skin Irrit. 2 | H315 - Causes skin irritation. |
| Eye Irrit. 2 | H319 - Causes serious eye irritation. |
| Resp. Sens. 1 | H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| Skin Sens. 1 | H317 - May cause an allergic skin reaction. |
| Carc. 2 | H351 - Suspected of causing cancer. |
| STOT SE 3 | H335 - May cause respiratory irritation. |
| STOT RE 2 | H373 - May cause damage to organs through prolonged or repeated exposure. |

Full text of H statements: see section 16
2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US)

- GHS07
- GHS08

Signal word (GHS-US) Danger

Hazard statements (GHS-US)
- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H319 - Causes serious eye irritation.
- H332 - Harmful if inhaled.
- H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 - May cause respiratory irritation.
- H351 - Suspected of causing cancer.
- H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements (GHS-US)
- P260 - Do not breathe vapours.
- P280 - Wear eye protection, protective clothing, protective gloves.
- P284 - [In case of inadequate ventilation] wear respiratory protection.
- P302+P352 - If on skin: Wash with plenty of water
- P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P342+P311 - If experiencing respiratory symptoms: Call a doctor, a POISON CENTER

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Not applicable
SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general  IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation  Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.

First-aid measures after skin contact  Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact  Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion  Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation  May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Symptoms/effects after skin contact  Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact  Eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media


5.2. Special hazards arising from the substance or mixture

Reactivity  The product is non-reactive under normal conditions of use, storage and transport.

5.3. Advice for firefighters

Protection during firefighting  Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
Emergency procedures
Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders
Protective equipment
Do not attempt to take action without suitable protective equipment. For further information refer to section 8: “Exposure controls/personal protection”.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up
Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information
Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections
For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.
Hygiene measures
Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions
Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.
Storage temperature
41 - 77 °F

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Substance/Concentration</th>
<th>Control Parameter</th>
<th>Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,4’-diphenylmethanediisocyanate, isomers and homologues (9016-87-9)</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>4,4’-methylenebisphenyl diisocyanate, diphenylmethane-4,4’-diisocyanate (101-68-8)</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>tris(2-chloro-1-methylethyl) phosphate (13674-84-5)</td>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

8.2. Exposure controls
Appropriate engineering controls
Ensure good ventilation of the work station.
CFS-F SOL / CP 620, B

Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Personal protective equipment
Gloves. Protective clothing. Safety glasses.

Skin and body protection
Wear suitable protective clothing.

Respiratory protection
[In case of inadequate ventilation] wear respiratory protection.

Environmental protection controls
Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>amber</td>
</tr>
<tr>
<td>Odour</td>
<td>There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour(s): Stuffy odour Mild odour Characteristic odour</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>≈ g/cm³</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information

VOC content 15 g/l EPA method 24 (CP 620, Comp. A + B)

SECTION 10: Stability and reactivity

10.1. Reactivity
The product is non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid
None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials
No additional information available

10.6. Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

**Acute toxicity**

<table>
<thead>
<tr>
<th>CFS-F SOL / CP 620, B</th>
<th>Inhalation: Harmful if inhaled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE US (gases)</td>
<td>4500 ppmv/4h</td>
</tr>
<tr>
<td>ATE US (vapours)</td>
<td>11 mg/l/4h</td>
</tr>
<tr>
<td>ATE US (dust,mist)</td>
<td>1.5 mg/l/4h</td>
</tr>
</tbody>
</table>

**4,4’-diphenylmethanediisocyanate, isomers and homologues (9016-87-9)**

<table>
<thead>
<tr>
<th>LD50 oral rat</th>
<th>&gt; 10000 mg/kg (Rat; Literature study)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 dermal rabbit</td>
<td>&gt; 5000 mg/kg (Rabbit; Literature study)</td>
</tr>
<tr>
<td>ATE US (gases)</td>
<td>4500 ppmv/4h</td>
</tr>
<tr>
<td>ATE US (vapours)</td>
<td>11 mg/l/4h</td>
</tr>
<tr>
<td>ATE US (dust,mist)</td>
<td>1.5 mg/l/4h</td>
</tr>
</tbody>
</table>

**4,4’-methylene diphenyl diisocyanate, diphenylmethane-4,4’-diisocyanate (101-68-8)**

<table>
<thead>
<tr>
<th>LD50 oral rat</th>
<th>&gt; 2000 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE US (gases)</td>
<td>4500 ppmv/4h</td>
</tr>
<tr>
<td>ATE US (vapours)</td>
<td>11 mg/l/4h</td>
</tr>
<tr>
<td>ATE US (dust,mist)</td>
<td>1.5 mg/l/4h</td>
</tr>
</tbody>
</table>

**tris(2-chloro-1-methylethyl) phosphate (13674-84-5)**

<table>
<thead>
<tr>
<th>LD50 oral rat</th>
<th>1150 - 1750 mg/kg bodyweight (Rat; Equivalent or similar to OECD 401; Experimental value: 1011-1824 mg/kg bodyweight; Rat; Experimental value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 dermal rat</td>
<td>&gt; 2000 mg/kg (Rat; Experimental value)</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>&gt; 2000 mg/kg bodyweight (Rabbit; Experimental value; OECD 402: Acute Dermal Toxicity)</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>1150 mg/kg bodyweight</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**
Causes skin irritation.

**Serious eye damage/irritation**
Causes serious eye irritation.

**Respiratory or skin sensitisation**
May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

**Germ cell mutagenicity**
Not classified

**Carcinogenicity**
Suspected of causing cancer.

**4,4’-diphenylmethanediisocyanate, isomers and homologues (9016-87-9)**

| IARC group | 3 - Not classifiable |
## 4,4'-methylene diphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8)

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>IARC group</td>
<td>3 - Not classifiable</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>May cause respiratory irritation.</td>
</tr>
<tr>
<td>Specific target organ toxicity (repeated exposure)</td>
<td>May cause damage to organs through prolonged or repeated exposure.</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Not classified</td>
</tr>
<tr>
<td>Symptoms/effects after inhalation</td>
<td>May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.</td>
</tr>
<tr>
<td>Symptoms/effects after skin contact</td>
<td>Irritation. May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>Symptoms/effects after eye contact</td>
<td>Eye irritation.</td>
</tr>
</tbody>
</table>

### SECTION 12: Ecological information

#### 12.1. Toxicity

**Ecology - general**
The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

#### 12.2. Persistence and degradability

**4,4'-diphenylmethanediisocyanate, isomers and homologues (9016-87-9)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 other aquatic organisms 1</td>
<td>&gt; 1000 mg/l (96 h)</td>
</tr>
<tr>
<td>Threshold limit other aquatic organisms 1</td>
<td>&gt; 1000 mg/l (96 h)</td>
</tr>
</tbody>
</table>

**tris(2-chloro-1-methylethyl) phosphate (13674-84-5)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>98 mg/l (96 h; Pimephales promelas; GLP)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>65 - 335 mg/l (48 h; Daphnia magna; GLP)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>56.2 mg/l (96 h; Brachydanio rerio)</td>
</tr>
<tr>
<td>Threshold limit algae 1</td>
<td>73 mg/l (96 h; Selenastrum capricornutum; Growth rate)</td>
</tr>
</tbody>
</table>

#### 12.3. Bioaccumulative potential

**4,4'-diphenylmethanediisocyanate, isomers and homologues (9016-87-9)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF fish 1</td>
<td>1 (Pisces)</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>Not bioaccumulative.</td>
</tr>
</tbody>
</table>

**tris(2-chloro-1-methylethyl) phosphate (13674-84-5)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF fish 1</td>
<td>0.8 - 4.6 (Cyprinus carpio; Test duration: 6 weeks)</td>
</tr>
<tr>
<td>Log Pow</td>
<td>2.59 (Experimental value)</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>Low potential for bioaccumulation (BCF &lt; 500).</td>
</tr>
</tbody>
</table>

#### 12.4. Mobility in soil

No additional information available.

#### 12.5. Other adverse effects

**Effect on the global warming**
No known effects from this product.
SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste treatment methods  Dispose of contents/container in accordance with licensed collector’s sorting instructions.
Product/Packaging disposal recommendations  Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

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

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

No supplementary information available

14.6. Special precautions for user
- Overland transport
- Transport by sea
No data available
- Air transport
No data available
- Rail transport
Carriage prohibited (RID) No

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

15.1. US Federal regulations
All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory
4,4'-diphenylmethanediisocyanate, isomers and homologues (9016-87-9)

Subject to reporting requirements of United States SARA Section 313

<table>
<thead>
<tr>
<th>EPA TSCA Regulatory Flag</th>
<th>XU - XU - indicates a substance exempt from reporting under the Inventory Update Reporting Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(C)).</th>
</tr>
</thead>
<tbody>
<tr>
<td>SARA Section 313 - Emission Reporting</td>
<td>1 %</td>
</tr>
</tbody>
</table>

4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8)

Subject to reporting requirements of United States SARA Section 313

<table>
<thead>
<tr>
<th>CERCLA RQ</th>
<th>5000 lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>SARA Section 313 - Emission Reporting</td>
<td>1 %</td>
</tr>
</tbody>
</table>

15.2. International regulations

**CANADA**

4,4'-diphenylmethanediisocyanate, isomers and homologues (9016-87-9)
Listed on the Canadian DSL (Domestic Substances List)

4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8)
Listed on the Canadian DSL (Domestic Substances List)

**tris(2-chloro-1-methylethyl) phosphate (13674-84-5)**
Listed on the Canadian DSL (Domestic Substances List)

**EU-Regulations**
No additional information available

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

Acute Tox. 4 (Inhalation) H332
Skin Irrit. 2 H315
Eye Irrit. 2 H319
Resp. Sens. 1 H334
Skin Sens. 1 H317
Carc. 2 H351
STOT SE 3 H335
STOT RE 2 H373

Full text of hazard classes and H-statements : see section 16

**National regulations**

4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8)
Listed on EPA Hazardous Air Pollutant (HAPS)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

**SECTION 16: Other information**

Revision date 12/19/2017
Full text of H-statements:

<table>
<thead>
<tr>
<th>H</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H302</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled.</td>
</tr>
<tr>
<td>H334</td>
<td>May cause allergy or asthma symptoms or breathing difficulties if inhaled.</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation.</td>
</tr>
<tr>
<td>H351</td>
<td>Suspected of causing cancer.</td>
</tr>
<tr>
<td>H373</td>
<td>May cause damage to organs through prolonged or repeated exposure.</td>
</tr>
</tbody>
</table>

NFPA health hazard 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity 0 - Material that in themselves are normally stable, even under fire conditions.

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.