SAFETY DATA SHEET
CX² CERAMIC

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

1.1. Product identifier
Product name: CX² CERAMIC
Internal identification: L1350

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Car maintenance product.
Uses advised against: Use only for intended applications.

1.3. Details of the supplier of the safety data sheet
Supplier: GARDX INTERNATIONAL LTD
UNIT 7 CLOVELLY BUSINESS PARK
CLOVELLY ROAD
SOUTHBOURNE, EMSWORTH
HANTS
PO10 8PE
+44 (0)1243 376426
product@gardx.co.uk

1.4. Emergency telephone number
Emergency telephone: (24 hrs) +44 (0) 777 8505 330

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification (EC 1272/2008)
Physical hazards: Flam. Liq. 3 - H226
Environmental hazards: Aquatic Chronic 3 - H412

2.2. Label elements
Hazard pictograms
Signal word: Danger
Hazard statements: H226 Flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H372 Causes damage to organs (Central nervous system) through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.
H304 May be fatal if swallowed and enters airways.
### Precautionary statements

- **P210** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- **P273** Avoid release to the environment.
- **P280** Wear protective clothing, gloves, eye and face protection.
- **P301+P310** IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
- **P303+P361+P353** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
- **P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- **P310** Immediately call a POISON CENTER/ doctor.
- **P331** Do NOT induce vomiting.

### Contains

- Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, aromatics (2-25%), ORGANIC POLYSILAZANE, 3-AMINOPROPYLTRIETHOXYSILANE

### 2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

<table>
<thead>
<tr>
<th>Compounds</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)</td>
<td>60-100%</td>
</tr>
<tr>
<td>ORGANIC POLYSILAZANE</td>
<td>5-10%</td>
</tr>
<tr>
<td>3-AMINOPROPYLTRIETHOXYSILANE</td>
<td>1-5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS number</th>
<th>EC number</th>
<th>REACH registration number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)</td>
<td>—</td>
<td>919-164-8</td>
<td>01-2119473977-17-XXXX</td>
</tr>
<tr>
<td>ORGANIC POLYSILAZANE</td>
<td>475645-84-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-AMINOPROPYLTRIETHOXYSILANE</td>
<td>919-30-2</td>
<td>213-048-4</td>
<td></td>
</tr>
</tbody>
</table>

#### Classification

**STOT RE 1 - H372**

**Asp. Tox. 1 - H304**

**Aquatic Chronic 3 - H412**

**Flam. Liq. 2 - H225**

**Acute Tox. 4 - H302**

**Skin Corr. 1B - H314**

**Eye Dam. 1 - H318**

**Skin Sens. 1 - H317**
SECTION 4: First aid measures

4.1. Description of first aid measures

General information
Show this Safety Data Sheet to the medical personnel.

Inhalation
Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.

Ingestion
Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention immediately.

Skin contact
Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.

Eye contact
Remove any contact lenses and open eyelids wide apart. Rinse cautiously with water for several minutes. Get medical attention immediately.

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

Inhalation
Vapours may cause headache, fatigue, dizziness and nausea.

Ingestion
May be fatal if swallowed and enters airways.

Skin contact
Causes severe burns.

Eye contact
Causes serious eye damage.

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

Notes for the doctor
Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
Use alcohol-resistant foam, carbon dioxide or dry powder to extinguish.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products
Thermal decomposition or combustion products may include the following substances:
Carbon monoxide (CO). Carbon dioxide (CO2). Nitrous gases (NOx). Ammonia or amines.

5.3. Advice for firefighters
CX² CERAMIC

Protective actions during firefighting

No specific firefighting precautions known.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Take precautionary measures against static discharges. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Do not touch or walk into spilled material. Avoid contact with skin, eyes and clothing. Take care as floors and other surfaces may become slippery. Avoid contact with contaminated tools and objects. Wash thoroughly after dealing with a spillage.

6.2. Environmental precautions

Environmental precautions

Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Contain and absorb spillage with sand, earth or other non-combustible material. Collect and place in suitable waste disposal containers and seal securely. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage.

6.4. Reference to other sections

Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

Avoid spilling. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe vapour/spray. Wear protective gloves, eye and face protection. Keep container tightly sealed when not in use.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Store at temperatures between 4°C and 40°C.

Storage class

Corrosive storage.

7.3. Specific end use(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

n-butyl acetate

Long-term exposure limit (8-hour TWA): WEL 150 ppm 724 mg/m³

Short-term exposure limit (15-minute): WEL 200 ppm 966 mg/m³

WEL = Workplace Exposure Limit

n-butyl acetate (CAS: 123-86-4)
**CX² CERAMIC**

**DNEL**
- Workers - Inhalation; Long term systemic effects: 300 mg/m³
- Workers - Inhalation; Short term systemic effects: 600 mg/m³
- Workers - Inhalation; Long term local effects: 300 mg/m³
- Workers - Inhalation; Long term local effects: 600 mg/m³
- Workers - Dermal; Long term systemic effects: 11 mg/kg/day
- Workers - Dermal; Short term systemic effects: 11 mg/kg/day
- General population - Inhalation; Long term systemic effects: 35.7 mg/m³
- General population - Inhalation; Short term systemic effects: 300 mg/m³
- General population - Inhalation; Long term local effects: 35.7 mg/m³
- General population - Inhalation; Short term local effects: 300 mg/m³
- General population - Dermal; Long term systemic effects: 6 mg/kg/day
- General population - Dermal; Short term systemic effects: 6 mg/kg/day
- General population - Oral; Long term systemic effects: 2 mg/kg/day
- General population - Oral; Short term systemic effects: 2 mg/kg/day

**PNEC**
- Fresh water; 0.18 mg/l
- Marine water; 0.018 mg/l
- Intermittent release; 0.36 mg/l
- STP; 35.6 mg/l
- Sediment (Freshwater); 0.981 mg/kg
- Sediment (Marine water); 0.0981 mg/kg
- Soil; 0.0903 mg/kg

**8.2. Exposure controls**

**Protective equipment**
- Provide adequate ventilation.

**Appropriate engineering controls**

**Eye/face protection**
- Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.

**Hand protection**
- Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. The selected gloves should have a breakthrough time of at least 4 hours. The breakthrough time for any glove material may be different for different glove manufacturers. When used with mixtures, the protection time of gloves cannot be accurately estimated. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Protective gloves should have a minimum thickness of 0.15 mm. Glove thickness is not necessarily a good measure of glove resistance as the permeation rate will depend on the exact glove composition. The choice of protective gloves depends upon the chemicals being handled, and the conditions of work and use. Repeated exposure to chemicals will degrade the ability of the glove to provide resistance to chemicals. Specific work environments and material handling practices may vary, therefore safety procedures should be developed for each intended application. Gloves made from the following material may provide suitable chemical protection: Neoprene. Nitrile rubber. Rubber (natural, latex).
CX² CERAMIC

Hygiene measures
Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear liquid.</td>
</tr>
<tr>
<td>Colour</td>
<td>Light (or pale). Straw.</td>
</tr>
<tr>
<td>Odour</td>
<td>Ammonia.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not known.</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Initial boiling point and range</td>
<td>180°C</td>
</tr>
<tr>
<td>Flash point</td>
<td>&lt; 60°C Setaflash closed cup.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.83 @ 25°C</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Insoluble in water.</td>
</tr>
</tbody>
</table>

9.2. Other information

Other information
Not determined.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity
The following materials may react with the product: Alcohols, glycols. Water.

10.2. Chemical stability

Stability
Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions
Reacts with water. Alcohols. Amines.

10.4. Conditions to avoid

Conditions to avoid
Water, moisture.

10.5. Incompatible materials

Materials to avoid
Water, moisture.

10.6. Hazardous decomposition products

Hazardous decomposition products
Thermal decomposition or combustion products may include the following substances: Carbon dioxide (CO2). Carbon monoxide (CO). Nitrous gases (NOx). Ammonia or amines.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral
ATE oral (mg/kg) 3,270.32

Aspiration hazard

6/11
CX² CERAMIC

Aspiration hazard
May be fatal if swallowed and enters airways.

Inhalation
Vapours may cause headache, fatigue, dizziness and nausea.

Ingestion
May be fatal if swallowed and enters airways.

Skin contact
Causes severe burns.

Eye contact
Causes serious eye damage.

Toxicological information on ingredients.

<table>
<thead>
<tr>
<th>Toxicological information on ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)</td>
</tr>
</tbody>
</table>

### Acute toxicity - oral

<table>
<thead>
<tr>
<th>Species</th>
<th>Acute toxicity oral (LD₅₀ mg/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rat</td>
<td>15,000.0</td>
</tr>
</tbody>
</table>

| ATE oral (mg/kg) | 15,000.0 |

### Acute toxicity - dermal

<table>
<thead>
<tr>
<th>Species</th>
<th>Acute toxicity dermal (LD₅₀ mg/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rabbit</td>
<td>3,400.0</td>
</tr>
</tbody>
</table>

| ATE dermal (mg/kg) | 3,400.0 |

### Acute toxicity - inhalation

| ATE inhalation (dusts/mists mg/l) | 13.1 |

### Specific target organ toxicity - repeated exposure

Target organs: Central nervous system

#### n-butyl acetate

<table>
<thead>
<tr>
<th>Acute toxicity - inhalation</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Acute toxicity inhalation (LC₅₀ vapours mg/l)</th>
<th>23.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE inhalation (vapours mg/l)</td>
<td>23.4</td>
</tr>
</tbody>
</table>

SECTION 12: Ecological information

Ecotoxicity
Harmful to aquatic life with long lasting effects.

12.1. Toxicity

#### Acute aquatic toxicity

Not determined.

Ecological information on ingredients.

<table>
<thead>
<tr>
<th>Ecological information on ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acute aquatic toxicity</th>
</tr>
</thead>
</table>

**CX² CERAMIC**

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Endpoint</th>
<th>Toxicity Value</th>
<th>Species/Strain/Species Combination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - fish</td>
<td>LC₅₀</td>
<td>10 mg/l</td>
<td>Oncorhynchus mykiss (Rainbow trout)</td>
</tr>
<tr>
<td>Acute toxicity - aquatic</td>
<td>EC₅₀</td>
<td>10-22 mg/l</td>
<td>Daphnia magna</td>
</tr>
<tr>
<td>invertebrates</td>
<td>IC₅₀</td>
<td>10 mg/l</td>
<td>Pseudokirchneriella subcapitata</td>
</tr>
<tr>
<td>Acute toxicity - aquatic</td>
<td>EC₅₀</td>
<td>397 mg/l</td>
<td>Selenastrum capricornutum</td>
</tr>
<tr>
<td>plants</td>
<td>IC₅₀</td>
<td>40 hour 356 mg/l</td>
<td>n-butyl acetate</td>
</tr>
</tbody>
</table>

**12.2. Persistence and degradability**

Persistence and degradability: The product is expected to be biodegradable.

**12.3. Bioaccumulative potential**

Bioaccumulative potential: Exposure to aquatic environment unlikely.

**12.4. Mobility in soil**

Mobility: Insoluble in water.

**12.5. Results of PBT and vPvB assessment**

Results of PBT and vPvB assessment: No data available.

**12.6. Other adverse effects**

Other adverse effects: Not determined.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

Disposal methods: Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

**SECTION 14: Transport information**

**General**

For limited quantity packaging/limited load information, consult the relevant modal documentation using the data shown in this section.

**Special Provisions note**

**14.1. UN number**

UN No. (ADR/RID): 2920
14.2. UN proper shipping name

| Proper shipping name (ADR/RID) | CORROSIVE LIQUID, FLAMMABLE LIQUID, N.O.S. (organic polysilazane, petroleum distillate) |
| Proper shipping name (IMDG)    | CORROSIVE LIQUID, FLAMMABLE LIQUID, N.O.S. (organic polysilazane, petroleum distillate) |
| Proper shipping name (ICAO)    | CORROSIVE LIQUID, FLAMMABLE LIQUID, N.O.S. (organic polysilazane, petroleum distillate) |

14.3. Transport hazard class(es)

| ADR/RID class       | 8       |
| ADR/RID subsidiary risk | 3       |
| ADR/RID classification code | CF1     |
| ADR/RID label       | 8       |
| IMDG class          | 8       |
| IMDG subsidiary risk | 3       |
| ICAO class/division | 8       |
| ICAO subsidiary risk | 3       |

Transport labels

14.4. Packing group

| ADR/RID packing group | II      |
| IMDG packing group    | II      |
| ICAO packing group    | II      |

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant No.

14.6. Special precautions for user

Tunnel restriction code (D/E)

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

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

Not applicable.
CX² CERAMIC

National regulations
Control of Substances Hazardous to Health Regulations 2002 (as amended).

EU legislation

Guidance
Workplace Exposure Limits EH40.

15.2. Chemical safety assessment

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet
ATE: Acute Toxicity Estimate.
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS: Chemical Abstracts Service.
DNEL: Derived No Effect Level.
GHS: Globally Harmonized System.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
LC₅₀: Lethal Concentration to 50 % of a test population.
LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
PBT: Persistent, Bioaccumulative and Toxic substance.
PNEC: Predicted No Effect Concentration.
vPvB: Very Persistent and Very Bioaccumulative.
EC₅₀: 50% of maximal Effective Concentration.

Classification abbreviations and acronyms
Acute Tox. = Acute toxicity
Asp. Tox. = Aspiration hazard
Aquatic Chronic = Hazardous to the aquatic environment (chronic)
Eye Dam. = Serious eye damage
Flam. Liq. = Flammable liquid
Skin Corr. = Skin corrosion
STOT SE = Specific target organ toxicity-single exposure

Revision comments
NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date
25/10/2019

Revision
1.3

Supersedes date
20/03/2019

SDS number
28591
Hazard statements in full

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H336 May cause drowsiness or dizziness.
H372 Causes damage to organs (Central nervous system) through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.