



The Chemistry of Cleaning™

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VIC 03 9480 3000  
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# Safety Data Sheet

Issued: October 2020

## Section 1 - Identification of the Material and Supplier

**Chemical nature:** Water solution of acids, surfactants and other ingredients.  
**Trade Name:** CM-X  
**Product Code:** CMX5, CMX20, CMX200  
**Product Use:** Dissolving concrete, scale and rust from hard surfaces.  
**Creation Date:** October, 2020  
**This version issued:** This SDS shall remain valid for 5 years unless a new SDS is issued in the meantime. Please contact Agar Cleaning Systems P/L to ensure you have the latest version of this product's SDS.

**Poisons Information Centre: Phone 13 1126 from anywhere in Australia**

### SUPPLIER DETAILS

Company: Agar Cleaning Systems Pty. Ltd.  
 Address: 12-14 Cope Street, Preston, Vic. 3072 AUSTRALIA  
 Telephone: 03 9480 3000 Facsimile: 03 9480 5100  
 Web: www.agar.com.au Agar SDS are available from this website.  
 Email: sales@agar.com.au

## Section 2 - Hazards Identification

### Statement of Hazardous Nature

This product is classified as hazardous according to the criteria of SWA.  
 Dangerous Good according to Australian Dangerous Goods (ADG) Code, IATA or IMDG/IMSBC criteria.

**SUSMP Classification:** S6.

**ADG Classification:** Class 8: Corrosive Substances.

**UN Number:** 3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.



### GHS Signal word: DANGER

Corrosive to Metals – Category 1  
 Skin Corrosion/Irritation - Category 1  
 Serious eye damage - Category 1  
 Specific Target Organ Toxicity (Single Exposure) – Category 3

### HAZARD STATEMENT:

H290: May be corrosive to metals.  
 H314: Causes severe skin burns and eye damage.  
 H335: May cause respiratory irritation.

### PREVENTION

P102: Keep out of reach of children.  
 P234: Keep only in original packaging.  
 P260: Do not breathe dusts or mists.  
 P264: Wash contacted areas thoroughly after handling.  
 P271: Use only outdoors or in a well-ventilated area.  
 P280: Wear protective gloves, protective clothing and eye or face protection.

### RESPONSE

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
 P363: Wash contaminated clothing before reuse.  
 P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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 CENTRE phone Australia 131 126 or doctor/physician.  
 P390: Absorb spillage to prevent material damage.

**STORAGE**

P405: Store locked up.

**DISPOSAL**

P501: If they can not be recycled, dispose of contents to an approved waste disposal plant and containers to landfill (see Section 13 of this SDS).

**Diluted Product**

**This product becomes non-hazardous when diluted to 1 in 62.5 (1.6%) or more with water.**

**Emergency Overview**

**Physical Description & Colour:** Clear, yellow liquid.

**Odour:** Mild acid odour.

**Major Health Hazards:** Severe skin burns and eye damage. May cause respiratory irritation.

**Section 3 - Composition/Information on Ingredients**

Ingredients	CAS No	Conc, %	TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )
Urea hydrochloride	506-89-8	30 - 60	not set	not set
Hydrochloric acid	7647-01-0	< 5	7.5	Peak
Nonionic surfactants	secret	< 5	not set	not set
Other non hazardous ingredients	various	< 10	not set	not set
Water	7732-18-5	to 100	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

**Section 4 - First Aid Measures**

**General Information:**

You should call the Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

**Undiluted Product:**

**Inhalation:** No first aid measures normally required. If inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

**Skin Contact:** Flush contaminated area with lukewarm, gently flowing water for at least 30 minutes, by the clock. DO NOT INTERRUPT FLUSHING. If necessary, keep emergency vehicle waiting (show paramedics this SDS and take their advice). Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands, belts). If irritation persists, repeat flushing. Seek medical attention.

**Eye Contact:** Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, by the clock, while holding the eyelid(s) open. Neutral saline solution may be used as soon as it is available. DO NOT INTERRUPT FLUSHING. If

**Diluted Product (1 in 5):**

**Inhalation:** No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists for more than 30 minutes, seek medical advice.

**Skin Contact:** Flush contaminated area with lukewarm, gently flowing water for at least 30 minutes, by the clock. DO NOT INTERRUPT FLUSHING. If necessary, keep emergency vehicle waiting (show paramedics this SDS and take their advice). Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands, belts). If irritation persists, repeat flushing. Seek medical attention.

**Eye Contact:** Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, by the clock, while holding the eyelid(s) open. Neutral saline solution may be used as soon as it is available. DO NOT INTERRUPT FLUSHING. If

necessary, keep emergency vehicle waiting (show paramedics this SDS and take their advice). Take care not to rinse contaminated water into the unaffected eye or onto face. Call a Poisons Information Centre or a doctor urgently. Take special care if exposed person is wearing contact lenses.

**Ingestion:** If swallowed, do NOT induce vomiting; rinse mouth thoroughly with water and contact a Poisons Information Centre. Urgent hospital treatment is likely to be needed. Give activated charcoal if instructed.

necessary, keep emergency vehicle waiting (show paramedics this SDS and take their advice). Take care not to rinse contaminated water into the unaffected eye or onto face. Call a Poisons Information Centre or a doctor urgently. Take special care if exposed person is wearing contact lenses.

**Ingestion:** If swallowed, do NOT induce vomiting; rinse mouth thoroughly with water and contact a Poisons Information Centre. Urgent hospital treatment is likely to be needed. Give activated charcoal if instructed.

## Section 5 - Fire Fighting Measures

**Fire and Explosion Hazards:** The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. This will only occur after heating to dryness.

Fire decomposition products from this product are likely to be toxic if inhaled. Take suitable protective measures.

**Extinguishing Media:** Not combustible. Use extinguishing media suited to burning materials. Water fog or fine spray is the preferred medium for large fires. Try to contain spills, minimise spillage entering drains or water courses.

**Fire Fighting:** If a significant quantity of this product is involved in a fire, call the fire brigade. Recommended personal protective equipment is liquid-tight chemical protective clothing and breathing apparatus.

**Flash point:** Does not burn.

**Upper Flammability Limit:** Does not burn.

**Lower Flammability Limit:** Does not burn.

**Autoignition temperature:** Not applicable - does not burn.

**Flammability Class:** Does not burn.

## Section 6 - Accidental Release Measures

**Accidental release:** In the event of a major spill, prevent spillage from entering drains or water courses.

Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Wear full protective chemically resistant clothing including eye/face protection, gauntlets and self-contained breathing apparatus. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include rubber, PVC, Nitrile, butyl rubber, neoprene, Teflon. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that vapours or mists are likely to build up in the clean-up area, we recommend that you use a respirator. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned below (section 8). Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Because of the corrosiveness of this product, special personal care should be taken in any clean-up operation. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Contaminated area may be neutralised by washing with weak or dilute alkali. Baking soda, washing soda and limestone are suitable. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

## Section 7 - Handling and Storage

**Handling:** Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

**Storage:** This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Store in a cool, well ventilated area. Check containers periodically for corrosion and leaks. Containers should be kept closed in order to minimise contamination. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. If you keep more than 10000kg or L of Dangerous Goods of Packaging Group III, you may be required to license the premises or notify your

Dangerous Goods authority. If you have any doubts, we suggest you contact your Dangerous Goods authority in order to clarify your obligations.

**Section 8 - Exposure Controls and Personal Protection**

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

<b>SWA Exposure Limits</b>	<b>TWA (mg/m<sup>3</sup>)</b>	<b>STEL (mg/m<sup>3</sup>)</b>
Hydrochloric acid	7.5	Peak

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Undiluted Product:**

**Ventilation:** This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

**Eye Protection:** Your eyes must be completely protected from this product by splash resistant goggles with face shield. All surrounding skin areas must be covered. Emergency eye wash facilities must also be available in an area close to where this product is being used.

**Skin Protection:** Because of the dangerous nature of this product, make sure that all skin areas are completely covered by impermeable gloves, overalls, hair covering, apron and face shield. See below for suitable material types.

**Protective Material Types:** We suggest that protective clothing be made from the following materials: rubber, PVC, nitrile, butyl rubber, neoprene, Teflon.

**Respirator:** Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

Eyebaths or eyewash stations and safety deluge showers should, if practical, be provided near to where this product is being handled commercially.

**Diluted Product (1 in 5):**

**Ventilation:** This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

**Eye Protection:** Your eyes must be completely protected from this product by splash resistant goggles with face shield. All surrounding skin areas must be covered. Emergency eye wash facilities must also be available in an area close to where this product is being used.

**Skin Protection:** Because of the dangerous nature of this product, make sure that all skin areas are completely covered by impermeable gloves, overalls, hair covering, apron and face shield. See below for suitable material types.

**Protective Material Types:** We suggest that protective clothing be made from the following materials: rubber, PVC, nitrile, butyl rubber, neoprene, Teflon.

**Respirator:** Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

Eyebaths or eyewash stations and safety deluge showers should, if practical, be provided near to where this product is being handled commercially.

**Section 9 - Physical and Chemical Properties:**

<b>Physical Description &amp; colour:</b>	Clear, yellow liquid.
<b>Odour:</b>	Mild acid odour.
<b>Boiling Point:</b>	Approximately 100°C at 100kPa.
<b>Freezing/Melting Point:</b>	Below 0°C.
<b>Volatiles:</b>	Water component.
<b>Vapour Pressure:</b>	2.37 kPa at 20°C (water vapour pressure).
<b>Vapour Density:</b>	As for water.
<b>Specific Gravity:</b>	1.19
<b>Water Solubility:</b>	Completely soluble in water.
<b>pH:</b>	0 – 0.5 (as supplied).
<b>Volatility:</b>	No data.
<b>Odour Threshold:</b>	No data.
<b>Evaporation Rate:</b>	As for water.
<b>Coeff Oil/water Distribution:</b>	No data.
<b>Autoignition temp:</b>	Not applicable - does not burn.

**Section 10 - Stability and Reactivity**

**Reactivity:** Most strong acids react with inorganic and organic bases such as amines to form salts. They also react with many metals liberating hydrogen gas. These reactions are often rapid and sometimes liberate much heat. They can also decompose many organic materials such as esters, in a reaction called hydrolysis.

**Conditions to Avoid:** This product should be kept in a cool place, preferably below 30°C. Keep containers tightly closed. Containers should be kept dry.

**Incompatibilities:** Bases, amines, zinc, tin, aluminium and their alloys.

**Fire Decomposition:** Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. This will only occur after heating to dryness. Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. May form nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. May form hydrogen chloride gas, other compounds of chlorine. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

**Polymerisation:** This product will not undergo polymerisation reactions.

**Section 11 - Toxicological Information**

**Information on toxicological effects:**

Acute toxicity	No known significant effects or hazards.
Skin corrosion/irritation	Corrosion.
Serious eye damage/irritation	Serious eye damage.
Respiratory or skin sensitisation	No known significant effects or hazards.
Germ cell mutagenicity	No known significant effects or hazards.
Carcinogenicity	No known significant effects or hazards.
Reproductive toxicity	No known significant effects or hazards.
Specific target organ toxicity (STOT)- single exposure	May cause respiratory irritation.
Specific target organ toxicity (STOT)- repeated exposure	No known significant effects or hazards.
Aspiration hazard	No known significant effects or hazards.

**Classification of Hazardous Ingredients**

<b>Ingredient:</b>	<b>Health effects:</b>
Urea hydrochloride	Skin corrosion and severe eye damage. May cause respiratory irritation.
Hydrochloric acid	Skin corrosion and severe eye damage. May cause respiratory irritation.
Nonionic surfactants	Skin irritation and serious eye damage. Harmful if swallowed.

**Potential Health Effects**

**Inhalation:**

**Short Term Exposure:** Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort. If liquid enters nasal passages, it will cause pain and burn nasal membranes. Patients with inhalation burns may develop acute pulmonary oedema.

**Long Term Exposure:** No data for health effects associated with long term inhalation.

**Skin Contact:**

**Short Term Exposure:** This product is corrosive to the skin. Capable of causing severe burns with deep ulceration, and can penetrate to deeper layers of skin resulting in third degree burns. Corrosion will continue until product is removed or neutralised. Severity depends on concentration and duration of exposure. Burns may not be immediately painful; the onset of pain may be minutes to hours.

**Long Term Exposure:** No data for health effects associated with long term skin exposure.

**Eye Contact:**

**Short Term Exposure:** This product is corrosive to eyes. It will cause severe pain, and corrosion of the eye and surrounding facial tissues. Unless exposure is immediately treated, permanent blindness and facial scarring will occur.

**Long Term Exposure:** No data for health effects associated with long term eye exposure.

**Ingestion:**

**Short Term Exposure:** Significant oral exposure is considered to be unlikely. However, this product is corrosive to the gastrointestinal tract. Capable of causing severe burns with deep ulceration, and can penetrate to deeper layers of skin resulting in third degree burns. Corrosion will continue until product is removed or neutralised. Severity depends on concentration and duration of exposure.

**Long Term Exposure:** No data for health effects associated with long term ingestion.

**Carcinogen Status:**

**SWA:** No significant ingredient is classified as carcinogenic by SWA.

**NTP:** No significant ingredient is classified as carcinogenic by NTP.

**IARC:** No significant ingredient is classified as carcinogenic by IARC.

**Section 12 - Ecological Information**

This product is harmful to aquatic organisms. This product will not accumulate in the soil or water or cause long term problems. However, until diluted or neutralised it will kill all aquatic organisms it contacts due to extreme pH.

**Section 13 - Disposal Considerations**

**Disposal:** Containers should be emptied as completely as practical before disposal. If possible, recycle product and containers either in-house or send to recycle company. If this is not practical, send to a commercial waste disposal site.

**Section 14 - Transport Information**

**Dangerous according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.**

**UN Number:** 3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

**Hazchem Code:** 2X

**Special Provisions:** 223, 274

**Limited quantities:** ADG 7 specifies a Limited Quantity value of 5 L for this class of product.

**Dangerous Goods Class:** Class 8: Corrosive Substances.

**Packaging Group:** III

**Packaging Method:** P001, IBC03, LP01

Class 8 Corrosive Substances shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 4.3 (Dangerous When Wet Substances), 5.1 (Oxidising Agents), 5.2 (Organic Peroxides), 6 (Toxic Substances where the Toxic Substances are cyanides and the Corrosives are acids), 7 (Radioactive Substances), Foodstuffs and foodstuff empties. They may however be loaded in the same vehicle or packed in the same freight container with Classes 2.1 (Flammable Gases), 2.2 (Non-Flammable, Non-Toxic Gases), 2.3 (Poisonous Gases), 3 (Flammable liquids), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 6 (Toxic Substances except where the Toxic Substances are cyanides and the Corrosives are acids) and 9 (Miscellaneous Dangerous Goods).

**Section 15 - Regulatory Information**

**AICS:** All of the significant ingredients in this formulation are compliant with AICIS regulations. The following ingredients are mentioned in the SUSMP: Hydrochloric acid.

**Section 16 - Other Information**

**This SDS contains only safety-related information. For other data see product literature.**

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO PROVIDE ADDITIONAL INFORMATION. OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

**Please read all labels carefully before using product.**

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (May 2018) and is Copyright ©.

**Abbreviations and Definitions of terms used:**

<	less than
>	greater than
ADG CODE	Australian Code for the Transport of Dangerous Goods by Road and Rail (7 <sup>th</sup> edition)
AICS	Australian Inventory of Chemical Substances
CAS	Chemical Abstracts Service (Registry Number)
COD	Chemical Oxygen Demand
deg C	Degrees Celsius
g	gram
g/L	grams per litre
Hazchem Code	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
HSIS	Hazardous Substance Information System
IARC	International Agency for Research on Cancer
kg	kilogram
L	Litre
LC50	The concentration of a material (inhaled) that will be lethal to 50% of the test animals.
LD50	The dose (swallowed all at once) which is lethal to 50% of a group of test animals.
m3	Cubic metre

mg	milligram
mg/m3	milligrams per cubic metre
miscible	A liquid that mixes homogeneously with another liquid
N/A	Not applicable
N/K	Not Known
NIOSH	National Institute for Occupational Safety and Health
non-haz	Non- hazardous
NOS	Not otherwise specified
NTP	National Toxicology Program (USA)
PEL	Permissible Exposure Limit
ppb	Parts per billion
ppm	Parts per million
R-Phrase	Risk Phrase
STEL	Short term exposure limit
SUSMP	Standard for the Uniform Scheduling of Medicines & Poisons
SWA	Safe Work Australia, formerly ASCC and NOHSC
TLV	Threshold Limit Value
TWA	Time Weighted average
UN Number	United Nations (Number)
wt	weight

The information in this Data Sheet is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. As far as lawfully possible, Agar Cleaning Systems accepts no liability for any loss, injury or damage (including consequential loss) suffered or incurred by any person as a consequence of reliance on the information and advice contained herein.

End of SDS.