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1 Identification · Product identifier: CCHD, CCHD-1G, CCHD-5G, CCHD-DR Trade name: HVAC CHEM[™] COIL CLEANER HEAVY DUTY - CONCENTRATE · Item number(s): CCHD, CCHD-1G, CCHD-5G, CCHD-DR · MSDS Number: 71 · UPC bar code(s): 699913-10430, 699913-10435, 699913-10440 · Application of the substance / the mixture COIL CLEANER · Manufacturer/Supplier: **USA ADDRESS:** HVAC 🛴 CHEM" KEMPER SYSTEM AMERICA, INC. 1200 NORTH AMERICA DR, WEST SENECA, NY 14224 PH (716) 558-2971 CANADIAN ADDRESS: **KEMPER SYSTEM CANADA** 13 -5200 DIXIE ROAD MISSISSAUGA, ON L4W 1E4 PH (905) 624-5463 FAX (905) 624-2840 · Information department: Tel: (716) 558-2971 ext. 228 www.hvacchem.com • Emergency telephone number: ChemTrec (800) 424-9300 Canada only: CANUTEC (Call collect) (613) 996-6666 2 Hazard(s) identification · Classification of the substance or mixture: **GHS05** Corrosion Skin Corrosion - Category 1A H314 Causes severe skin burns and eye damage. Serious Eye Damage - Category 1 H318 Causes serious eye damage. · Label elements · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS). · Signal word: Danger · Hazard-determining components of labeling: disodium metasilicate potassium hydroxide · Hazard statements: Causes severe skin burns and eye damage. · Precautionary statements: Do not breathe dust/fume/gas/mist/vapours/spray.

Wear protective gloves/protective clothing/eye protection/face protection.

Wash thoroughly after handling.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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(Contd. of page 1) Immediately call a POISON CENTER/doctor. Specific treatment (see on this label). IF INHALED: Remove person to fresh air and keep comfortable for breathing. Wash contaminated clothing before reuse. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations. • NFPA ratings (scale 0 - 4):

Health = 3 Fire = 0 Reactivity = 0

3 Composition/information on ingredients

· Chemical characterization: Mixtures

• Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous	components:
-------------	-------------

J		
6834-92-0	disodium metasilicate	≤10% w/w
1310-58-3	potassium hydroxide	2-<5% w/w
111-76-2	2-butoxyethanol	1-5% w/w

· Additional information: Exact concentrations are being withheld as trade secrets.

4 First-aid measures

· After inhalation:

Remove victim to fresh air and keep at rest in a position comfortable for breathing, immediately call a poison center or doctor.

- After skin contact: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a poison center or doctor.
- After eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing, immediately call a poison center or doctor.
- After swallowing: Do not induce vomiting, Immediately call a poison center/ doctor.
- Most important symptoms and effects, both acute and delayed: No further relevant information available.
- Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Fire-fighting measures

- Suitable extinguishing agents:
- CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture: No further relevant information available.
- Protective equipment: No special measures required.

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6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Wear protective equipment. Keep unprotected persons away.
- Environmental precautions: Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

- Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use neutralizing agent. Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.
 Reference to other sections: See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

7 Handling and storage

· Handling

- **Precautions for safe handling:** Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.
- Information about protection against explosions and fires: No special measures required.
- · Storage
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.
- **Specific end use(s):** No further relevant information available.

8 Exposure controls/personal protection

• Additional information about design of technical systems: No further data; see item 7.

\cdot Components with limit values that require monitoring at the workplace:		
1310-58-3 potassium hydroxide		
EL (Canada)	Ceiling limit value: 2 mg/m ³	
EV (Canada)	Ceiling limit value: 2 mg/m ³	
REL (USA)	Ceiling limit value: 2 mg/m ³	
TLV (USA)	Ceiling limit value: 2 mg/m ³	
111-76-2 2-butoxyethanol		
EL (Canada)	Long-term value: 20 ppm	
EV (Canada)	Long-term value: 20 ppm Skin	
PEL (USA)	Long-term value: 240 mg/m³, 50 ppm Skin	
REL (USA)	Long-term value: 24 mg/m³, 5 ppm Skin	
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· Flammability (solid, gaseous):

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	(Contd. of page 3)	
TLV (USA) Long-term value: 97 n	ng/m³, 20 ppm	
BEI		
· Ingredients with biological limit values:		
111-76-2 2-butoxyethanol		
BEI (USA) 200 mg/g creatinine		
Medium: urine		
Time: end of shift		
Parameter: Butoxyacetic acid with hydrolysis		
	nat were valid during the creation were used as basis.	
Personal protective equipment		
General protective and hygienic n Keep away from foodstuffs, beverag		
Immediately remove all soiled and c		
Wash hands before breaks and at th		
Avoid contact with the eyes and skir		
 Breathing equipment: 		
	levice in case of insufficient ventilation.	
Not required. • Protection of hands:		
The glove material has to be impern • Material of gloves: Butyl rubber, BR Fluorocarbon rubber (Viton) Nitrile rubber, NBR Natural rubber, NR • Eye protection: Tightly sealed goggles	neable and resistant to the product/ the substance/ the preparation.	
9 Physical and chemical prop	erties	
· Form:	Liquid	
· Color:	Green	
· Odor:	Mild	
· Odor threshold:	Not determined.	
 pH-value at 20 °C: 	14	
 Change in condition Melting point/Melting range: Boiling point/Boiling range: 	Undetermined. 100 °C	
· Flash point:	Not applicable.	
	· ·	

Not applicable.

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	(Contd. of page
· Ignition temperature:	
Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure at 20 °C:	23 hPa
· Density:	Not determined.
· Relative density:	Not determined.
· Vapour density:	Not determined.
• Evaporation rate:	Not determined.
· Solubility in / Miscibility with	
Water:	Fully miscible.
· Partition coefficient (n-octanol/wa	ater): Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	2,0 %
Solids content:	29,1 %
 Other information 	No further relevant information available.

10 Stability and reactivity

• **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

No decomposition if used according to specifications.

- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- \cdot Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects:
- · Acute toxicity

· LD/LC50 values that are relevant for classification:

6834-92-0 disodium metasilicate

Oral LD50 1280 mg/kg (rat)

1310-58-3 potassium hydroxide

Oral LD50 273 mg/kg (rat)

• Specific symptoms in biological assay: No further relevant information available.

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Safety Data Sheet acc. to OSHA HCS & WHMIS

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- · Primary irritant effect
- on the skin: Caustic effect on skin and mucous membranes.
- on the eye: Strong caustic effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Corrosive

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

111-76-2 2-butoxyethanol

· NTP (National Toxicology Program)

None of the ingredients is listed.

12 Ecological information

- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- · Behavior in environmental systems
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
- · Additional ecological information
- · General notes:

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· Other adverse effects: No further relevant information available.

13 Disposal considerations

· Waste treatment methods

· Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings
- · Recommendation:

Place in a sealed container and label as waste. Place in a safe area, and comply with all federal, state, provincial and local regulations for disposal.

• Recommended cleansing agent: Water, if necessary with cleansing agents.

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UN-Number	
DOT, TDG, IMDG, IATA	UN1719
UN proper shipping name	
DOT	Caustic alkali liquids, n.o.s. (Potassium hydroxide)
TDG	1719 Caustic alkali liquids, n.o.s. (Potassium hydroxide
IMDG, IATA	CAUSTIC ALKALI LIQUID, N.O.S. (POTASSIU
	HYDROXIDE)
Transport hazard class(es)	
DOT	
P17-34	
CORRESIVE	
Class	8 Corrosive substances
Label	8
TDG, IMDG, IATA	-
~ · · · · · · · · · · · · · · · · · · ·	
Class	8 Corrosive substances
Label	8
Packing group	
DOT, TDG, IMDG, IATA	II
Environmental hazards:	
Marine pollutant:	No
Special precautions for user:	Warning: Corrosive substances
Danger code (Kemler):	80
EMS Number:	F-A,S-B
Segregation groups	Alkalis
Stowage Category	Α
Segregation Code	SG22 Stow "away from" ammonium salts
	SG35 Stow "separated from" acids.
Transport in bulk according to Annex MARPOL73/78 and the IBC Code:	t II of Not applicable.
Transport/Additional information:	
DOT	
Quantity limitations	On passenger aircraft/rail: 1 L
-	On cargo aircraft only: 30 L
TDG	
Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml

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	(Contd. of page 7)
 IMDG Limited quantities (LQ) Excepted quantities (EQ) 	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1719 CAUSTIC ALKALI LIQUIDS, N.O.S. (POTASSIUM HYDROXIDE), 8, 11

15 Regulatory information

 \cdot Safety, health and environmental regulations/legislation specific for the substance or mixture \cdot Sara

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):

111-76-2 2-butoxyethanol

· TSCA (Toxic Substances Control Act):

All ingredients are listed or exempted

Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Canadian substance listings

· Canadian Domestic Substances List (DSL/NDSL):

All ingredients are listed.

· Canadian Ingredient Disclosure list (limit 0.1%):

None of the ingredients is listed.

· Canadian Ingredient Disclosure list (limit 1%):

6834-92-0 disodium metasilicate

1310-58-3 potassium hydroxide

111-76-2 2-butoxyethanol

GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS). • Hazard pictograms



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Trade name: HVAC CHEM[™] COIL CLEANER HEAVY DUTY - CONCENTRATE

(Contd. of page 8) Signal word Danger · Hazard-determining components of labeling: disodium metasilicate potassium hvdroxide · Hazard statements Causes severe skin burns and eye damage. Precautionary statements Do not breathe dust/fume/gas/mist/vapours/spray. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Specific treatment (see on this label). IF INHALED: Remove person to fresh air and keep comfortable for breathing. Wash contaminated clothing before reuse. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations.

16 Other information

This MSDS format meets ANSI Z400.1-1998, OSHA 1910.1200 and WHMIS requirements. Kemper System America, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Product use and conditions of use are beyond the control of Kemper System America, Inc. Warranty of materials is limited to test results of product performance as detailed in certificates of compliance. Interpretation of test results is the responsibility of end-user. No other warranties, expressed or implied, are made. Kemper System America, Inc is an ISO 9001:2008 and ISO 14001:2004 registered company.

· Department issuing SDS: Product safety department

- · Date of preparation / last revision 11/23/2016 / -
- Abbreviations and acronyms: IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent