



Process2Clean[®] 1

Safety Data Sheet

VELTEK ASSOCIATES, INC.

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 9/1/2011 Revision date: 10/28/2021 Supersedes: 4/5/2017 Version: 4.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Process2Clean[®] 1
Product code : SDS VEL-013

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Alkaline detergent
For professional use only

1.3. Supplier

Veltek Associates, Inc.
15 Lee Blvd
Malvern, PA 19355-1234 USA
Telephone: +1 610-644-8335 - Fax: +1 610-644-8336
E-mail: vai@sterile.com

In Canada distributed by:
Canada Clean Room (CCR)
20 Cope Dr.
Kanata, ON K2M 2V8, Canada
Telephone: (888)595-8070

1.4. Emergency telephone number

Emergency number : CARECHEM 24: 1-215-207-0061
1-866-928-0789 (toll free)
Canada: 1-800-579-7421 (toll free)
Mexico: +52-55-5004-8763

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Corrosive to metals Category 1	H290	May be corrosive to metals
Skin corrosion/irritation Category 1A	H314	Causes severe skin burns and eye damage
Serious eye damage/eye irritation Category 1	H318	Causes serious eye damage
Specific target organ toxicity (repeated exposure) Category 2	H373	May cause damage to organs (respiratory tract) through prolonged or repeated exposure (Inhalation)

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger
Hazard statements (GHS US) : H290 - May be corrosive to metals
H314 - Causes severe skin burns and eye damage

Process2Clean® 1

Safety Data Sheet

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

Precautionary statements (GHS US)	: H318 - Causes serious eye damage H373 - May cause damage to organs (respiratory tract) through prolonged or repeated exposure (Inhalation) P234 - Keep only in original container. P260 - Do not breathe vapors. P264 - Wash hands thoroughly after handling. P280 - Wear eye protection, face protection, protective clothing, protective gloves. 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/shower. 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 doctor. P363 - Wash contaminated clothing before reuse. P390 - Absorb spillage to prevent material-damage. P405 - Store locked up. P406 - Store in corrosive resistant container with a resistant inner liner. P501 - Dispose of contents/container to an authorized waste collection point.
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2.3. Other hazards which do not result in classification

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

Name	Product identifier	%	GHS US classification
Potassium hydroxide	CAS-No.: 1310-58-3	10 - 30	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314 Eye Dam. 1, H318
Tetrasodium ethylene diamine tetraacetate	CAS-No.: 64-02-8	5 - 15	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Eye Dam. 1, H318 STOT RE 2, H373

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret
Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove person to fresh air and keep at rest in a position comfortable for breathing. If symptoms develop obtain medical attention.

Process2Clean[®] 1

Safety Data Sheet

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

First-aid measures after skin contact	: Immediately remove contaminated clothing or footwear. Rinse skin with plenty of water or shower. Obtain immediate medical attention.
First-aid measures after eye contact	: Rinse immediately with plenty of water (for at least 15 minutes). Ensure that folded skin of eyelids is thoroughly washed with water. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain immediate medical attention.
First-aid measures after ingestion	: Do NOT induce vomiting. Do not give an unconscious person anything to drink. Rinse mouth. Give 100 - 200 ml of water to drink. Obtain immediate medical attention.

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

Symptoms/effects after inhalation	: Inhalation of vapors may cause respiratory irritation.
Symptoms/effects after skin contact	: Causes burns.
Symptoms/effects after eye contact	: Causes serious eye damage.
Symptoms/effects after ingestion	: Severe irritation or burns to the mouth, throat, esophagus, and stomach.
Chronic symptoms	: May cause damage to organs (respiratory tract) through prolonged or repeated exposure (if inhaled).

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: None known.

5.2. Specific hazards arising from the chemical

Fire hazard	: Not flammable.
Hazardous decomposition products in case of fire	: Fire may produce irritating, corrosive and/or toxic gases. Nitrogen oxides. Sodium oxides. Carbon dioxide. Carbon monoxide.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Keep upwind. Move containers from fire area if you can do it without risk. On heating, there is a risk of bursting due to internal pressure build-up. Cool down the containers exposed to heat with a water spray. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Use self-contained breathing apparatus when in close proximity to fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate area. Do not breathe vapors. Do not get in eyes, on skin, or on clothing. Evacuate unnecessary personnel.
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6.1.2. For emergency responders

Protective equipment	: Use personal protective equipment as required. See Section 8.
Emergency procedures	: Ventilate area. Do not breathe vapors. Do not get in eyes, on skin, or on clothing.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if large amounts of the product enters sewers or public waters.

Process2Clean[®] 1

Safety Data Sheet

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

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Large spills: Dike far ahead of liquid spill for later disposal. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store in corrosive resistant container with a resistant inner liner. Store away from other materials. Wash spill area with soapy water.

6.4. Reference to other sections

SECTION 8: Exposure controls/personal protection. SECTION 13: Disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Provide good ventilation in process area to prevent formation of vapor. Do not breathe vapors. Do not get in eyes, on skin, or on clothing. Wear suitable protective clothing, gloves and eye or face protection.

Hygiene measures : Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in original container or corrosive resistant and/or lined container. Keep container tightly closed in a cool, well-ventilated place. Store locked up. Protect from sunlight.

Incompatible materials : Strong acids. Oxidizing agents. Metals.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Potassium hydroxide (1310-58-3)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Potassium hydroxide
ACGIH OEL Ceiling	2 mg/m ³
Remark (ACGIH)	URT, eye, & skin irr
Regulatory reference	ACGIH 2021

8.2. Appropriate engineering controls

Appropriate engineering controls : Provide good ventilation in process area to prevent formation of vapor. Local exhaust ventilation (LEV) may be required to control inhalation exposure. Ensure exposure is below occupational exposure limits (where available). Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Process2Clean[®] 1

Safety Data Sheet

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

Hand protection:
Wear chemically resistant protective gloves. The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed. Gloves should be removed and replaced if there are any signs of degradation or breakthrough.
Eye protection:
Chemical goggles or face shield
Skin and body protection:
Use chemically protective clothing
Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazard protection:

Not required for normal conditions of use.

Other information:

Do not eat, drink or smoke during use. Handle in accordance with good industrial hygiene and safety procedures.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear.
Color	: Colorless
Odor	: Slight odor
Odor threshold	: No data available
pH	: 11.8 – 13.8
Melting point	: No data available
Freezing point	: -30 °F (-34.4 °C)
Boiling point	: 212 °F (100 °C)
Flash point	: Not flammable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 1.2 – 1.4 (Water = 1)
Solubility	: Water: Miscible
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: Not explosive.
Oxidizing properties	: Not oxidizing.

9.2. Other information

No additional information available

Process2Clean® 1

Safety Data Sheet

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

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended handling and storage conditions (see section 7).

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Freezing.

10.5. Incompatible materials

Acids. Oxidizing agents. Metals.

10.6. Hazardous decomposition products

In case of fire product can release: Sodium oxides. Nitrogen oxides. Carbon dioxide. Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Process2Clean® 1

LD50 oral, rat	> 2000 mg/kg
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Potassium hydroxide (1310-58-3)

LD50 oral, rat	333 mg/kg (OECD 425 method)
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Tetrasodium ethylene diamine tetraacetate (64-02-8)

LD50 oral, rat	1780 – 2000 mg/kg
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Skin corrosion/irritation : Causes severe skin burns.
pH: 11.8 – 13.8

Serious eye damage/irritation : Causes serious eye damage.
pH: 11.8 – 13.8

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : May cause damage to organs (respiratory tract) through prolonged or repeated exposure (Inhalation).

Tetrasodium ethylene diamine tetraacetate (64-02-8)

STOT-repeated exposure	May cause damage to organs (respiratory tract) through prolonged or repeated exposure (Inhalation).
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Aspiration hazard : Not classified

Viscosity, kinematic : No data available

Process2Clean® 1

Safety Data Sheet

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

Symptoms/effects after inhalation	: Inhalation of vapors may cause respiratory irritation.
Symptoms/effects after skin contact	: Causes burns.
Symptoms/effects after eye contact	: Causes serious eye damage.
Symptoms/effects after ingestion	: Severe irritation or burns to the mouth, throat, esophagus, and stomach.
Chronic symptoms	: May cause damage to organs (respiratory tract) through prolonged or repeated exposure (if inhaled).

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Not classified.

12.2. Persistence and degradability

Process2Clean® 1	
Persistence and degradability	No data available.
Potassium hydroxide (1310-58-3)	
Persistence and degradability	Not relevant for inorganic substances.
Tetrasodium ethylene diamine tetracetate (64-02-8)	
Persistence and degradability	Not readily biodegradable.

12.3. Bioaccumulative potential

Process2Clean® 1	
Bioaccumulative potential	No data available.
Potassium hydroxide (1310-58-3)	
Bioaccumulative potential	Low bioaccumulation potential.
Tetrasodium ethylene diamine tetracetate (64-02-8)	
BCF - Fish [1]	1.8 l/kg
Log Pow	-13.17 (calculated value)
Bioaccumulative potential	Not expected to bioaccumulate.

12.4. Mobility in soil

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Ecology - soil	Miscible with water.
Potassium hydroxide (1310-58-3)	
Mobility in soil	Not expected to adsorb to soil

12.5. Other adverse effects

Other information : Avoid release to the environment.

Process2Clean® 1

Safety Data Sheet

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

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal. The correct waste code must be determined by the producer of the waste, based on how the waste has been produced.
Additional information	: Handle empty containers with care.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

In accordance with Department of Transport / Transportation of Dangerous Goods / IMDG / IATA

14.1. UN number

DOT NA No	: UN1814
UN-No. (TDG)	: UN1814
UN-No. (IMDG)	: 1814
UN-No. (IATA)	: 1814

14.2. UN proper shipping name

Proper Shipping Name (DOT)	: Potassium hydroxide, solution
Proper Shipping Name (TDG)	: POTASSIUM HYDROXIDE SOLUTION
Proper Shipping Name (IMDG)	: POTASSIUM HYDROXIDE SOLUTION
Proper Shipping Name (IATA)	: Potassium hydroxide solution
Transport document description (DOT)	: UN1814 Potassium hydroxide, solution, 8, II
Transport document description (TDG)	: UN1814 POTASSIUM HYDROXIDE SOLUTION, 8, II
Transport document description (IMDG)	: UN 1814 POTASSIUM HYDROXIDE SOLUTION, 8, II
Transport document description (IATA)	: UN 1814 Potassium hydroxide solution, 8, II

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT)	: 8
Hazard labels (DOT)	: 8



TDG

Transport hazard class(es) (TDG)	: 8
Hazard labels (TDG)	: 8



IMDG

Transport hazard class(es) (IMDG)	: 8
Hazard labels (IMDG)	: 8

Process2Clean® 1

Safety Data Sheet

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



IATA

Transport hazard class(es) (IATA) : 8
Hazard labels (IATA) : 8



14.4. Packing group

Packing group (DOT) : II
Packing group (TDG) : II
Packing group (IMDG) : II
Packing group (IATA) : II

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT

UN-No.(DOT) : UN1814
DOT Special Provisions (49 CFR 172.102) : B2, IB2, T7, TP2
DOT Packaging Exceptions (49 CFR 173.xxx) : 154
DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
DOT Packaging Bulk (49 CFR 173.xxx) : 242
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 1 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 30 L
DOT Vessel Stowage Location : A
DOT Vessel Stowage Other : 52

TDG

UN-No. (TDG) : UN1814
Explosive Limit and Limited Quantity Index : 1 L
Excepted quantities (TDG) : E2
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : 1 L
Emergency Response Guide (ERG) Number : 154

IMDG

No data available

IATA

No data available

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

Not applicable

Process2Clean® 1

Safety Data Sheet

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

SECTION 15: Regulatory information

15.1. US Federal regulations

Process2Clean® 1	
SARA Section 311/312 Hazard Classes	Physical hazard - Corrosive to metals Health hazard - Skin corrosion or Irritation Health hazard - Serious eye damage or eye irritation Health hazard - Specific target organ toxicity (single or repeated exposure)

Potassium hydroxide (1310-58-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

CERCLA RQ	1000 lb
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Tetrasodium ethylene diamine tetraacetate (64-02-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Potassium hydroxide (1310-58-3)

Listed on the Canadian DSL (Domestic Substances List)

Tetrasodium ethylene diamine tetraacetate (64-02-8)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

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

Component	State or local regulations
Potassium hydroxide(1310-58-3)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Revision date : 10/28/2021
Data sources : US OSHA HazCom (GHS) 25 May 2012.
Other information : None.

Full text of H-phrases

H290	May be corrosive to metals
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Process2Clean® 1

Safety Data Sheet

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

Full text of H-phrases	
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H332	Harmful if inhaled
H373	May cause damage to organs through prolonged or repeated exposure

Abbreviations and acronyms	
	ACGIH (American Conference of Government Industrial Hygienists)
	BCF (Bioconcentration Factor/Bioconcentration factor)
	CAS (Chemical Abstracts Service) number
	DOT (Department Of Transportation (US))
	EC50 (Effective Concentration 50%)
	IARC (International Agency for Research on Cancer)
	IATA (International Air Transport Association)
	IBC (Intermediate Bulk Container)
	IMDG (International Maritime Dangerous Goods Code)
	IMO (International Maritime Organisation)
	LC50 (Lethal Concentration 50%)
	LD50 (Lethal Dose 50%)
	Koc (Soil adsorption coefficient)
	NIOSH (National Institute for Occupational Safety and Health)
	NOEC (No Observed Effect Concentration)
	OECD (Organisation for Economic Co-operation and Development)
	OEL (Occupational exposure limit)
	OSHA (Occupational Safety and Health Administration) (US)
	PEL (Permissible Exposure Limit)
	QSAR (Quantitative Structure-Activity Relationship)
	STEL (Short Term Exposure Limit)
	TLV (Threshold Limit Value) (ACGIH)
	TSCA (Toxic Substances Control Act) (US)
	TWA (Time Weighted Average)
	UNxxxx (Number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods)
	WAF (Water Accommodated Fraction)

NFPA health hazard

: 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

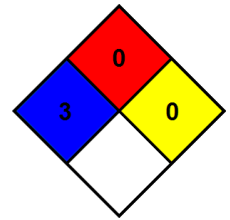
Process2Clean® 1

Safety Data Sheet

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

NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

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



Hazard Rating Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability : * - Chronic (long-term) health effects may result from repeated overexposure

Physical : 0 Minimal Hazard - Materials that will not burn

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Indication of changes:			
Section	Changed item	Change	Comments
2	Hazards identification	Modified	
3	Composition/Information on ingredients	Modified	
4	First aid measures	Modified	
5	Fire fighting measures	Modified	
6	Accidental release measures	Modified	
7	Handling and storage	Modified	
8	Exposure controls / Personal protection equipment	Modified	
10	Stability and reactivity	Modified	
11	Toxicological information	Modified	
12.	Ecological information	Modified	
13	Disposal considerations	Modified	
15	Regulatory information	Modified	
16	Other information	Modified	

Safety Data Sheet (SDS), USA

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