

Safety Data Sheet

acc. to OSHA HCS 29CFR1910.1200

Printing Date 08/17/2017

Version number 5

Reviewed on 08/17/2017

1 Identification

Trade name: 5768 Cleaner

Article number: C8-00-5768

Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Kester Inc.
800 West Thorndale Avenue
Itasca, IL 60143 USA
Tel (630) 616-4000
Tel International 00 1 630 616-4000

ITW Specialty Materials (Suzhou) Co., Ltd.
Heng Qiao Road
Wujiang Economic Development Zone
Suzhou, Jiangsu 215200 China
Tel +86 512 82060808

Kester GmbH
Ganghofer Strasse 45
D-82216 Gernlinden Germany
Tel +49 (0) 8142 4785 0

Information department:

Product Compliance: EHS_Kester@kester.com

Emergency telephone number:

CHEMTREC 24-Hour Emergency Response Telephone Number : (800) 424-9300

CHEMTREC 24-Hour Emergency Response (Outside US & Canada) Telephone Number : (703) 527-3887

2 Hazard(s) identification

Classification of the substance or mixture



Health hazard

Carc. 2 H351 Suspected of causing cancer.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



Acute Tox. 4 H302 Harmful if swallowed.

Label elements

GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 2)

Safety Data Sheet
acc. to OSHA HCS 29CFR1910.1200

Printing Date 08/17/2017

Version number 5

Reviewed on 08/17/2017

Trade name: 5768 Cleaner

(Contd. of page 1)

Hazard pictograms



GHS05 GHS07 GHS08

Signal word Danger

Hazard-determining components of labeling:

diethanolamine
ethanolamine

Hazard statements

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P264 Wash thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
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.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:

NFPA ratings (scale 0 - 4)



Health = 3
Fire = 1
Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = *3
Fire = 1
Reactivity = 0

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

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

CAS No.	Description	% Range
CAS: 112-34-5	2-(2-butoxyethoxy)ethanol	40-55%

 Eye Irrit. 2A, H319

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS 29CFR1910.1200

Printing Date 08/17/2017

Version number 5

Reviewed on 08/17/2017

Trade name: 5768 Cleaner

(Contd. of page 2)

CAS: 111-42-2	diethanolamine		25-40%
CAS: 141-43-5	ethanolamine		10-25%
Trade Secret	Aliphatic hydroxyl diol		1-3%

4 First-aid measures

Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Follow general first aid procedures.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Seek immediate medical advice.

Information for 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

Extinguishing media

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

Nitrogen oxides (NO_x)

In case of fire, the following can be released:

Advice for firefighters

Protective equipment: No special measures required.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Environmental precautions: 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).

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.

(Contd. on page 4)

Safety Data Sheet
acc. to OSHA HCS 29CFR1910.1200

Printing Date 08/17/2017

Version number 5

Reviewed on 08/17/2017

Trade name: 5768 Cleaner

(Contd. of page 3)

Protective Action Criteria for Chemicals

PAC-1:

CAS: 112-34-5	2-(2-butoxyethoxy)ethanol	30 ppm
CAS: 111-42-2	diethanolamine	3 mg/m3
CAS: 141-43-5	ethanolamine	6 ppm
	Aliphatic hydroxyl diol	30 mg/m3

PAC-2:

CAS: 112-34-5	2-(2-butoxyethoxy)ethanol	33 ppm
CAS: 111-42-2	diethanolamine	28 mg/m3
CAS: 141-43-5	ethanolamine	170 ppm
	Aliphatic hydroxyl diol	330 mg/m3

PAC-3:

CAS: 112-34-5	2-(2-butoxyethoxy)ethanol	200 ppm
CAS: 111-42-2	diethanolamine	130 mg/m3
CAS: 141-43-5	ethanolamine	1,000 ppm
	Aliphatic hydroxyl diol	2,000 mg/m3

7 Handling and storage

Handling:

Precautions for safe handling

Store in cool, dry place in tightly closed receptacles.
Prevent formation of aerosols.

Information about protection against explosions and fires: No special measures required.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: Store in a cool location.

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.

Control parameters

Components with limit values that require monitoring at the workplace:

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the remaining constituent has no known exposure limits.

CAS: 112-34-5 2-(2-butoxyethoxy)ethanol

TLV Long-term value: 67.5* mg/m³, 10* ppm
*Inhalable fraction and vapor

CAS: 111-42-2 diethanolamine

REL Long-term value: 15 mg/m³, 3 ppm
TLV Long-term value: 1* mg/m³, 0.2* ppm
Skin; *inhalable fraction and vapor

(Contd. on page 5)

Safety Data Sheet
acc. to OSHA HCS 29CFR1910.1200

Printing Date 08/17/2017

Version number 5

Reviewed on 08/17/2017

Trade name: 5768 Cleaner

(Contd. of page 4)

CAS: 141-43-5 ethanolamine

PEL	Long-term value: 6 mg/m ³ , 3 ppm
REL	Short-term value: 15 mg/m ³ , 6 ppm Long-term value: 8 mg/m ³ , 3 ppm
TLV	Short-term value: 15 mg/m ³ , 6 ppm Long-term value: 7.5 mg/m ³ , 3 ppm

Additional information:

PEL = Permissible Exposure Limit (OSHA)
TLV= Threshold Limit Value (ACGIH)
OSHA= Occupational Safety and Health Administration
ACGIH= American Conference of Governmental Industrial Hygienists

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

Breathing equipment:

When ventilation is not sufficient to remove fumes from the breathing zone, a safety approved respirator or self-contained breathing apparatus should be worn.
Not necessary if room is well-ventilated.
Use suitable respiratory protective device in case of insufficient ventilation.

Protection of hands:



Protective gloves

Material of gloves:

Nitrile rubber, NBR
Natural rubber, NR

Penetration time of glove material:

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:



Safety glasses

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form: Liquid
Color: Colorless to light yellow
Odor: Ammonia-like

pH-value at 20°C (68 °F): 11.4

(Contd. on page 6)

Safety Data Sheet
acc. to OSHA HCS 29CFR1910.1200

Printing Date 08/17/2017

Version number 5

Reviewed on 08/17/2017

Trade name: 5768 Cleaner

(Contd. of page 5)

Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: 171°C (339.8 °F)

Flash point: > 100°C (>212 °F)

Ignition temperature: 225°C (437 °F)

Auto igniting: Product is not selfigniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower: 0.9Vol %
Upper: 10.6Vol %

Vapor pressure at 20°C (68 °F): 0.3hPa (0.2 mm Hg)

Density at 20°C (68 °F): 0.99g/cm³ (8.26 lbs/gal)

Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

Solvent content:

Organic solvents: 97.1%

Solids content: 0.2%

10 Stability and reactivity

Reactivity No further relevant information available.

Chemical stability

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

Possibility of hazardous reactions No dangerous reactions known.

Conditions to avoid No further relevant information available.

Incompatible materials: Strong acids, strong oxidizers.

Hazardous decomposition products:

Nitrogen oxides

When heated to soldering temperatures, solvents will be evaporated and organic material may release aliphatic aldehydes and acids.

11 Toxicological information

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:

CAS: 112-34-5 2-(2-butoxyethoxy)ethanol

Oral	LD50	5,660 mg/kg (rat)
Dermal	LD50	4,000 mg/kg (rabbit)

CAS: 111-42-2 diethanolamine

Oral	LD50	1,600 mg/kg (rat)
Dermal	LD50	12,200 mg/kg (rabbit)

(Contd. on page 7)

Safety Data Sheet
acc. to OSHA HCS 29CFR1910.1200

Printing Date 08/17/2017

Version number 5

Reviewed on 08/17/2017

Trade name: 5768 Cleaner

(Contd. of page 6)

CAS: 141-43-5 ethanolamine

Oral	LD50	2,050 mg/kg (rat)
Dermal	LD50	1,000 mg/kg (rabbit)
Inhalative	LC50/4 h	11 mg/l (ATE)

Primary irritant effect:
on the skin: Caustic effect on skin and mucous membranes.
on the eye: Irritating effect.
through inhalation: May cause respiratory irritation.
through ingestion: May cause gastrointestinal irritation.
Sensitization: Sensitization possible through inhalation.

Additional toxicological information:

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

Harmful
Corrosive
Irritant

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)

CAS: 111-42-2 diethanolamine	2B
------------------------------	----

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Additional ecological information:

General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

13 Disposal considerations

Waste treatment methods

Recommendation:

Disposal must be made according to official regulations.
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

Safety Data Sheet
acc. to OSHA HCS 29CFR1910.1200

Printing Date 08/17/2017

Version number 5

Reviewed on 08/17/2017

Trade name: 5768 Cleaner

(Contd. of page 7)

14 Transport information

UN-Number UN3267
DOT, ADR, IMDG, IATA
UN proper shipping name 3267 Corrosive liquid, basic, organic, n.o.s. (diethanolamine)
DOT Corrosive liquid, basic, organic, n.o.s. (diethanolamine)
ADR 3267 Corrosive liquid, basic, organic, n.o.s. (diethanolamine)
IMDG, IATA CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (diethanolamine)

Transport hazard class(es)

DOT



Class 8 Corrosive substances
Label 8

ADR, IMDG, IATA



Class 8 Corrosive substances
Label 8
Packing group
DOT, IMDG, IATA II
Marine pollutant: No
Special precautions for user Not applicable.
Danger code (Kemler): 80
EMS Number: F-A,S-B
Segregation groups Alkalis
Stowage Category B
Stowage Code SW2 Clear of living quarters.
Segregation Code SG35 Stow "separated from" acids.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

Transport/Additional information:

DOT

Quantity limitations On passenger aircraft/rail: 1 L
 On cargo aircraft only: 30 L

ADR

Excepted quantities (EQ) Code: E2
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 500 ml

IMDG

Limited quantities (LQ) 1L
Excepted quantities (EQ) Maximum net quantity per inner packaging: 30 ml

Safety Data Sheet
acc. to OSHA HCS 29CFR1910.1200

Printing Date 08/17/2017

Version number 5

Reviewed on 08/17/2017

Trade name: 5768 Cleaner

UN "Model Regulation":

(Contd. of page 8)
UN 3267 CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.
(DIETHANOLAMINE), 8, II

15 Regulatory information

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

All ingredients are listed on the following Government Inventories:

- China: Inventory of Existing Chemical Substances in China (IECSC)
- Korea: Korea Existing Chemicals List (ECL)
- Europe: European Inventory of Existing Commercial Chemical Substances (EINECS)
- Japan: Inventory of Existing and New Chemical Substances (ENCS)
- Philippines: Philippine Inventory of Chemicals and Chemical Substances (PICCS)
- USA: TSCA (Toxic Substances Control Act) TSCA Inventory of Chemical Substances

USA The following information relates to product regulation specific to the USA.

SARA (Superfund Amendments and Reauthorization Act)

Section 355 (extremely hazardous substances):

None of the ingredient is listed.

Section 313 (Specific toxic chemical listings):

- | | |
|---------------|---------------------------|
| CAS: 112-34-5 | 2-(2-butoxyethoxy)ethanol |
| CAS: 111-42-2 | diethanolamine |

California Proposition 65

Chemicals known to cause cancer:

diethanolamine

Chemicals known to cause reproductive toxicity:

None of the ingredients is listed.

Carcinogenic categories

EPA (Environmental Protection Agency)

None of the ingredients is listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

CANADA:

Workplace Hazardous Materials Identification (WHMIS):

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation (CPR) and the Safety Data Sheet (SDS) contains all of the information required by the CPR.

GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms



GHS05 GHS07 GHS08

Signal word Danger

Hazard-determining components of labeling:

diethanolamine
ethanolamine

Safety Data Sheet
acc. to OSHA HCS 29CFR1910.1200

Printing Date 08/17/2017

Version number 5

Reviewed on 08/17/2017

Trade name: 5768 Cleaner

(Contd. of page 9)

Hazard statements

- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H351 Suspected of causing cancer.
- H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

- P260 Do not breathe dust/fume/gas/mist/vapors/spray.
 - P264 Wash thoroughly after handling.
 - P280 Wear protective gloves/protective clothing/eye protection/face protection.
 - 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.
 - P308+P313 IF exposed or concerned: Get medical advice/attention.
 - P405 Store locked up.
 - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

The information contained herein is based on data considered accurate and is offered solely for information, consideration and investigation. Kester extends no warranties, makes no representations and assumes no responsibility as to the accuracy, completeness or suitability of this data for any purchaser's use. The data on this Material Safety Data Sheet relates only to this product and does not relate to use with any other material or in any process. All chemical products should be used only by, or under the direction of, technically qualified personnel who are aware of the hazards involved and the necessity for reasonable care in handling. Hazard communication regulations require that employees must be trained on how to use a Material Safety Data Sheet as a source for hazard information.

Department issuing Safety Data Sheet (SDS): Product Compliance / EHS Department

Contact: EHS_Kester@kester.com

Abbreviations and acronyms:

- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
- ICAO: International Civil Aviation Organisation
- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- 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)
- HMIS: Hazardous Materials Identification System (USA)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- NIOSH: National Institute for Occupational Safety
- OSHA: Occupational Safety & Health
- TLV: Threshold Limit Value
- PEL: Permissible Exposure Limit
- REL: Recommended Exposure Limit
- Flam. Liq. 4: Flammable liquids – Category 4
- Acute Tox. 4: Acute toxicity – Category 4
- Acute Tox. 3: Acute toxicity – Category 3
- Skin Corr. 1B: Skin corrosion/irritation – Category 1B
- Eye Dam. 1: Serious eye damage/eye irritation – Category 1
- Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
- Carc. 2: Carcinogenicity – Category 2
- STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

* **Data compared to the previous version altered.**