

UNICLEAN 157Version 2.0
SDS_SG

SDS Number: 1472968

Revision Date: 29.07.2019

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : UNICLEAN 157

Product code : 1472968

Manufacturer or supplier's details

Company : Atotech Deutschland GmbH

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Germany

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Company : Atotech (Singapore) Chemicals Pte Ltd

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Prepared by
Product Safety Department (PSD): product-safety@atotech.comInquiries
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Emergency telephone number : Emergency Contact# +6531581074

Recommended use of the chemical and restrictions on useRecommended use : Plating agents and metal surface treating agents
Surface treatment

Restrictions on use : For industrial use only.

2. HAZARDS IDENTIFICATION**GHS Classification**

Corrosive to metals : Category 1

Skin corrosion/irritation : Category 1

Serious eye damage/eye
irritation : Category 1

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Specific target organ toxicity - single exposure : Category 3 (Respiratory system)

GHS label elements

Hazard pictograms :



Signal word : Danger

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

Precautionary statements :

Prevention:

 P234 Keep only in original container.
 P260 Do not breathe dust or mist.
 P264 Wash skin thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves/ protective clothing/ eye protection/ 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/shower.
 P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
 P305 + P351 + P338 + P310 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.
 P363 Wash contaminated clothing before reuse.
 P390 Absorb spillage to prevent material damage.

Storage:

 P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.
 P406 Store in corrosive resistant container with a resistant inner liner.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards which do not result in classification

None known.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Solid

Hazardous ingredients

Chemical name	CAS-No.	Concentration (% w/w)
Sodium carbonate	497-19-8	>= 10 -< 25
Sodium hydroxide	1310-73-2	>= 10 -< 25
sodium metasilicate pentahydrate	10213-79-3	>= 10 -< 20
Sodium metasilicate	6834-92-0	>= 10 -< 20
Benzenesulfonic acid, C10-13-alkyl derivatives sodium salt	68411-30-3	>= 3 -< 5
Alcohols, C9-11-iso-, C10-rich, ethoxylated	78330-20-8	>= 1 -< 2.5
Polyoxyethylene trimethyldecyl alcohol	69011-36-5	>= 1 -< 2.5

The remaining 100% of the recipe consists of non-hazardous and/or confidential components.

4. FIRST AID MEASURES

- General advice : Call a physician or poison control center immediately.
Show this safety data sheet to the doctor in attendance.
- If inhaled : Call a physician or poison control center immediately.
Move to fresh air.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.
Take off all contaminated clothing immediately.
Consult a physician.
- In case of eye contact : Consult a physician.
In case of contact, immediately flush eyes with plenty of water for at least 60 minutes.
- If swallowed : Never give anything by mouth to an unconscious person.
Call a physician or poison control center immediately.
Do not induce vomiting without medical advice.
- Most important symptoms and effects, both acute and delayed : Redness
Blindness
Necrosis
Shortness of breath
Causes serious eye damage.
May cause respiratory irritation.
Causes severe burns.
- Protection of first aid : First Aid responders should pay attention to self-protection

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responders and use the recommended protective clothing

Notes to physician : For specialist advice physicians should contact the Poisons Information Service.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : No information available.

Hazardous combustion products : Carbon oxides
Oxides of phosphorus
Silicon oxides
Sulfur oxides

Specific extinguishing methods : Use a water spray to cool fully closed containers. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment. Avoid breathing dust. Avoid contact with skin, eyes and clothing. Evacuate personnel to safe areas. Prevent unauthorized access.

Environmental precautions : Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Avoid dust formation. Use approved industrial vacuum cleaner for removal. Shovel or sweep up. Keep in suitable, closed containers for disposal. Clean contaminated surface thoroughly. Dispose of in accordance with local regulations.

7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Provide appropriate exhaust ventilation at places where dust is formed.

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- Advice on safe handling : Avoid formation of respirable particles.
Do not breathe vapors/dust.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Provide sufficient air exchange and/or exhaust in work rooms.
Dispose of rinse water in accordance with local and national regulations.
Handle in accordance with good industrial hygiene and safety practice.
Avoid breathing dust.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
May be corrosive to metals.
- Materials to avoid : Do not store near acids.
- Recommended storage temperature : -5 - 40 °C

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Sodium hydroxide	1310-73-2	PEL (short term)	2 mg/m ³	SG OEL
		C	2 mg/m ³	ACGIH

Engineering measures : Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

No personal respiratory protective equipment normally required.

Hand protection

- Material : Nitrile rubber
Break through time : 480 min
Glove thickness : 0.4 mm
Manufacturer : e.g. KCL
Recommendation : e.g. KCL Camatril@Velours 730

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Remarks	: The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. The information is based on our own tests, on data from literature and information from protective glove producers or is based on data obtained from similar substances. If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature). Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
Eye protection	: Tightly fitting safety goggles Face-shield Ensure that eyewash stations and safety showers are close to the workstation location.
Skin and body protection	: Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	: Avoid contact with skin, eyes and clothing. Avoid breathing dust. When using do not eat or drink.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: solid
Color	: light gray, beige, light brown
Odor	: No information available.
Odor Threshold	: No data available
pH	: > 11.5 (20 °C) Concentration: 5 % (as aqueous solution)
Melting point/range	: not determined
Boiling point/boiling range	: not determined
Flash point	: Not applicable
Evaporation rate	: Not applicable
Flammability (solid, gas)	: Not classified as a flammability hazard

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Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapor pressure	:	not determined
Relative vapor density	:	Not applicable
Density	:	not determined
Solubility(ies)		
Water solubility	:	soluble
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Oxidizing properties	:	Not applicable

10. STABILITY AND REACTIVITY

Reactivity	:	May be corrosive to metals.
Chemical stability	:	Stable under recommended storage conditions.
Possibility of hazardous reactions	:	Gives off hydrogen by reaction with metals. Risk of violent reaction Potential for exothermic hazard
Conditions to avoid	:	Avoid dust formation. To avoid thermal decomposition, do not overheat. Exposure to moisture
Incompatible materials	:	Acids Metals
Hazardous decomposition products	:	No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	:	Inhalation Eye contact Skin Absorption
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Acute toxicity

Based on available data, the classification criteria are not met.

Product:Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method**Components:****|| Benzenesulfonic acid, C10-13-alkyl derivatives sodium salt:**

Acute oral toxicity : Acute toxicity estimate (Rat): 500 mg/kg

|| Alcohols, C9-11-iso-, C10-rich, ethoxylated:

Acute oral toxicity : Acute toxicity estimate: 500 mg/kg

|| Polyoxyethylene trimethyldecyl alcohol:

Acute oral toxicity : Acute toxicity estimate: 500 mg/kg

Skin corrosion/irritation

Causes severe burns.

Product:Remarks: Extremely corrosive and destructive to tissue.
May cause irreversible skin damage such as necrosis, ulcers or burns.**Serious eye damage/eye irritation**

Causes serious eye damage.

Product:

Remarks: May cause irreversible eye damage such as corneal damage and blindness.

Respiratory or skin sensitization**Skin sensitisation**

Based on available data, the classification criteria are not met.

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT - single exposure

May cause respiratory irritation.

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STOT - repeated exposure

Based on available data, the classification criteria are not met.

Aspiration toxicity

Based on available data, the classification criteria are not met.

Further information**Product:**Remarks: No data available

12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****|| Sodium carbonate:**Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 300 mg/l
Exposure time: 96 hToxicity to daphnia and : EC50 (Daphnia magna (Water flea)): 265 mg/l
other aquatic : Exposure time: 48 h
invertebrates**|| Alcohols, C9-11-iso-, C10-rich, ethoxylated:**Toxicity to fish : LC50: > 10 - 100 mg/l
Exposure time: 96 h**Persistence and degradability****Components:****|| Alcohols, C9-11-iso-, C10-rich, ethoxylated:**

Biodegradability : Result: Readily biodegradable.

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects**Product:**Additional ecological : No data available
information

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13. DISPOSAL CONSIDERATIONS**Disposal methods**

- Waste from residues : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Dispose of in accordance with local regulations.
- Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION**International Regulations****UNRTDG**

- UN number : UN 3262
Proper shipping name : CORROSIVE SOLID, BASIC, INORGANIC, N.O.S.
Technical name(s) : (Sodium hydroxide, disodium trioxosilicate)
Class : 8
Packing group : II
Labels : 8

IATA-DGR

- UN/ID No. : UN 3262
Proper shipping name : Corrosive solid, basic, inorganic, n.o.s.
Technical name(s) : (Sodium hydroxide, disodium trioxosilicate)
Class : 8
Packing group : II
Labels : Corrosive
Packing instruction (cargo aircraft) : 863
Packing instruction (passenger aircraft) : 859

IMDG-Code

- UN number : UN 3262
Proper shipping name : CORROSIVE SOLID, BASIC, INORGANIC, N.O.S.
Technical name(s) : (Sodium hydroxide, disodium trioxosilicate)
Class : 8
Packing group : II
Labels : 8
EmS Code : F-A, S-B
Marine pollutant : no

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

Not applicable for product as supplied.

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15. REGULATORY INFORMATION

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

Workplace Safety and Health Act and Workplace Safety and Health (General Provisions) Regulations: This product is subjected to the SDS, labelling, PEL and other requirements in the Act/Regulations.

Environmental Protection and Management Act and : Sodium hydroxide
 Environmental Protection and Management
 (Hazardous Substances) Regulations

Fire Safety (Petroleum and Flammable Materials) : Not applicable
 Regulations

Substances currently restricted by WEEE/RoHS (European Directives 2015/863/EU, 2012/19/EU and 2011/65/EU) or ELV (European Directive 2000/53/EC):

PBDE	PBB	CrVI	Hg	Pb	Cd
-	-	-	-	-	-
Phthalates:		DEHP	BBP	DBP	DIBP
		-	-	-	-

Please note: Current legislation according to WEEE/RoHS or ELV restricting the use of certain substances applies to "homogeneous material" in finished articles being supplied to the market. Substances deposited during surface finishing may have a composition (weight percent) higher than the weight percent of the substance in the operating solution from which the deposit is made. Atotech encourages its customers to implement systems to ensure their finished products comply with the regulations in force.

16. OTHER INFORMATION

Full text of other abbreviations

(Q)SAR - (Quantitative) Structure Activity Relationship; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect

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Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TDG - Transportation of Dangerous Goods; UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System; CMR - Carcinogen, Mutagen or Reproductive Toxicant; GLP - Good Laboratory Practice

Date format : dd.mm.yyyy

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
SG OEL : Singapore. Workplace Safety and Health Act - First Schedule
Permissible Exposure Limits of Toxic SubstancesACGIH / C : Ceiling limit
SG OEL / PEL (short term) : Permissible Exposure Level (PEL) Short Term

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

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