

Midmark Corporation  
60 Vista Drive  
Versailles, OH 45380

Safety Data Sheet (SDS)  
OSHA HazCom Standard 29 CFR 1910.1200.

**SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION**

**Product Name:** Tartar & Stain Remover/Denture Cleaner

**Product Number:** DP5600

**Contact:**

MIDMARK CORPORATION  
60 VISTA DRIVE  
VERSAILLES, OH 45380

**Tel:** 800-643-6275

**Fax:** 937-526-8285 (Sterilizer Op Group)

**EMERGENCY TELEPHONE NUMBERS**

24 HOURS A DAY

INTERNATIONAL

8 AM TO 4:30 PM - CENTRAL TIME

CHEMTREC 800-424-9300

CHEMTREC 703-527-3887

262-255-9500

**SECTION 2 – HAZARD(S) IDENTIFICATION**

Classification of the substance or mixture



Corrosion

Causes severe skin burns and eye damage.



Causes serious eye irritation.

Harmful if swallowed.

Causes skin irritation.

Label elements

GHS label elements

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

Hazard pictograms



GHS05



GHS07

**Signal word:** Danger

Safety Data Sheet (SDS)  
OSHA HazCom Standard 29 CFR 1910.1200.

**Hazard statements**

(Continued of page 1)

Causes severe skin burns and eye damage.

**Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray.

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

Wash thoroughly after handling.

IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Specific treatment (see on this label).

IF INHALED: Move victim to fresh air and keep at rest in a position comfortable for breathing.

Wash contaminated clothing before reuse.

If eye irritation persists: Get medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

Immediately call a POISON CENTER/doctor.

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

**SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS**

**Chemical characterization: Mixtures**

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

**Dangerous Components:**

CAS No.	Description	% Range	GHS-US classification
CAS: 7732-18-5	Water	60-90%	Hazard Classification: None Risk Phrases: None
CAS: 77-92-9	Citric acid	10-30%	⚠ Eye Irrit. 2, H319
CAS: 5329-14-6	Sulfamic acid	1-5%	⚠ Skin Irrit. 2, H315 ⚠ Eye Irrit. 2, H319 ⚠ Aquatic Chronic 3, H412

Safety Data Sheet (SDS)  
OSHA HazCom Standard 29 CFR 1910.1200.

(Continued of page 2)

CAS: 25155-30-0	Benzenesulfonic acid	<1%	⚠	Eye Irrit. 2, H319
CAS: 532-32-1	Sodium Benzoate	<1%	⚠ ⚠	Skin Irrit. 2, H315 Eye Irrit. 2, H319

#### SECTION 4 - FIRST AID INFORMATION

##### 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.

##### *After inhalation:*

If having difficulty breathing, contact emergency personnel immediately

Supply fresh air and to be sure call for a doctor.

##### *After skin contact:*

Remove contaminated clothing. Wash clothing before reuse.

Immediately wash with water and soap and rinse thoroughly.

If irritation occurs consult a doctor.

##### *After eye contact:*

Hold eyelids apart and flush eyes with plenty of water for at least 20 minutes.

Seek medical treatment.

##### *After swallowing:*

Give large amounts of water or milk.

Do not induce vomiting and call for medical help.

Never give anything by mouth to an unconscious person.

##### *Most important symptoms and effects, both acute and delayed*

No further relevant information available.

##### *Information for doctor:*

No further relevant information available.

##### *Indication of any immediate medical attention and special treatment needed*

No further relevant information available.

#### SECTION 5 - FIRE-FIGHTING INFORMATION

##### Extinguishing media

##### *Suitable extinguishing agents:*

CO<sub>2</sub>, 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.

##### Advice for firefighters

##### *Protective equipment:*

Full protective clothing and self-contained breathing apparatus should be worn.

Midmark Corporation  
60 Vista Drive  
Versailles, OH 45380

Safety Data Sheet (SDS)  
OSHA HazCom Standard 29 CFR 1910.1200.

**SECTION 6 - ACCIDENTAL RELEASE INFORMATION**

*Personal precautions, protective equipment and emergency procedures:*

Refer to section 8

*Environmental precautions:*

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

*Methods and material for containment and cleaning up:*

Dispose contaminated material as waste according to section 13.

*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.

**SECTION 7 - HANDLING AND STORAGE**

*Precautions for safe handling:*

Avoid contact with skin, eyes and clothing.

*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:*

Keep container tightly closed.

Store in a well ventilated place.

Store in a cool, dry place.

Do not store in aluminum, carbon steel, copper, copper alloys, fiberglass, brass, zinc, nickel or galvanized containers.

*Information about storage in one common storage facility:*

Not required.

*Further information about storage conditions:*

Use PET, HDPE and/or related plastics for suitable packaging.

*Specific end use(s)*

No further relevant information available.

**SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**

*Additional information about design of technical systems:*

No further data; see section 7.

*Control parameters*

*Components with occupational exposure limits:*

Federal guidelines suggest to treat the ingredient in this product as a nuisance dust, as no product specific guidelines have been issued for exposure.

Particulates Not Otherwise Regulated: OSHA (PEL/TWA): 15 mg/m<sup>3</sup> (total dust); 5 mg/m<sup>3</sup> (resp fraction)

*Additional information:*

The lists that were valid during the creation were used as basis.

Safety Data Sheet (SDS)  
OSHA HazCom Standard 29 CFR 1910.1200.

(Continued of page 4)

**Exposure controls**

Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the SDS. Where acceptable concentrations cannot be maintained by general mechanical ventilation, local exhaust ventilation is recommended.

**Personal protective equipment:**

**General protective and hygienic measures:**

Keep away from tobacco products.

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:** Not required.

**Protection of hands:**



Protective Gloves



Protective goggles

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/the chemical mixture.

Select glove material based on penetration times, rates of diffusion and degradation.

**Material of gloves**

The selection of the suitable gloves depends on the material, and marks of quality, and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material**

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

**Eye protection:**

Have a safety shower and eyewash fountain readily available in the immediate work area.

Tightly sealed goggles

**Body protection:** Protective work clothing

**SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties

General Information

**Appearance:**

Form: Liquid

Color: Yellow

Odor: No significant odor

Odor threshold: Not determined

pH-value @ 20° C (68° F): 2.3

**Change in condition:**

**Flash point:** Not applicable

Melting point/Melting range: Not determined.

**Flammability (solid, gaseous):** Not determined

Boiling point/Boiling range: 100° C (212° F)

Safety Data Sheet (SDS)  
OSHA HazCom Standard 29 CFR 1910.1200.

(Continued of page 5)

<b>Ignition temperature:</b>		<b>Auto igniting:</b>	Product is not self igniting.
Decomposition temperature:	Not determined.		
<b>Danger of explosion:</b>	Product does not present an explosion hazard.		
<b>Explosion limits:</b>			
Lower:	Not determined	Upper:	Not determined
<b>Vapor pressure:</b>	Not applicable	<b>Relative density</b>	Not determined
<b>Density:</b>	Not determined	<b>Vapor density</b>	Not applicable
<b>Evaporation rate</b>	Not determined		
<b>Solubility in / Miscibility with Water:</b>	>10%		
<b>Partition coefficient (n-octanol/water):</b>	Not determined		
<b>Viscosity:</b>			
Dynamic:	Not applicable	Kinematic:	Not applicable
<b>Specific Gravity (H2)=1:</b>	1.04 ± 0.02		
<b>Other information</b>	No further relevant information available.		

**SECTION 10 – STABILITY AND REACTIVITY**

<b>Reactivity</b>	No further relevant information available.
<b>Chemical stability</b>	Product is stable under normal conditions.
<b>Thermal decomposition / conditions to be avoided:</b>	
No decomposition if used according to specifications.	
<b>Conditions to avoid:</b>	
Avoid heat, moisture and other incompatible materials as stated above.	
<b>Incompatible materials:</b>	
Metal nitrates (potentially explosive reaction), alkali carbonates and bicarbonates, potassium tartrate, strong oxidizers, nitric acid and chlorine. Will corrode copper, zinc, aluminum and their alloys. Solutions of this material are strong acids and react violently with bases.	
<b>Hazardous decomposition products:</b>	
Carbon dioxide and carbon monoxide may form when heated to decomposition.	
Sulfamic acid may emit ammonia, oxides of sulfur, oxides of nitrogen and oxides of carbon.	

**SECTION 11 – TOXICOLOGICAL INFORMATION**

<b>Information on toxicological effects</b>	
<b>Acute toxicity</b>	
<b>LD/LC50 values that are relevant for classification</b>	
Citric acid (CAS: 77-92-9)	
LD50 oral rate	5040 mg/kg (mouse)

Midmark Corporation  
60 Vista Drive  
Versailles, OH 45380

Safety Data Sheet (SDS)  
OSHA HazCom Standard 29 CFR 1910.1200.

Sulfamic acid (CAS: 5329-14-6)		(Continued of page 6)
LD50 oral rate	3160 mg/kg (rat)	
Benzenesulfonic acid (CAS: 25155-30-0)		
LD50 oral rate	1980 mg/kg (rat)	
Sodium Benzoate (CAS: 532-32-1)		
LD50 oral rate	>2000 mg/kg (rat)	
<p><b>Primary irritant effect:</b>  <i>On the skin:</i> Strong caustic effect on skin and mucous membranes.  <i>On the eye:</i> Corrosive effect.</p> <p><b>Additional toxicological information:</b>          The product shows the following dangers according to internally approved calculation methods for preparations:          Harmful          Corrosive          Swallowing will lead to a corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.</p> <p><b>Carcinogenic categories</b>  <i>IARC (International Agency for Research on Cancer)</i> None of the ingredients is listed.  <i>NTP (National Toxicology Program)</i> None of the ingredients is listed.  <i>OSHA-Ca (Occupational Safety &amp; Health Administration)</i> None of the ingredients is listed.</p>		

<b>SECTION 12 – ECOLOGICAL INFORMATION</b>		
<b>Toxicity</b>		
<i>Aquatic toxicity:</i>	Acutely toxic to aquatic life.	
Persistence and degradability	No further relevant information available.	
Bioaccumulative potential	No further relevant information available.	
Mobility in soil	No further relevant information available.	
<b>Additional ecological information:</b>		
<b>General notes:</b>		
Water hazard class 1 (Self-assessment):	Slightly hazardous for water.	
Must not reach bodies of water or drainage ditch undiluted or un-neutralized.		
<b>Results of PBT and vPvB assessment</b>		
PBT:	Not applicable	
vPvB:	Not applicable	
Other adverse effects	No further relevant information available.	

<b>SECTION 13 – DISPOSAL CONSIDERATIONS</b>		
<b>Waste disposal methods</b>		
Waste disposal recommendation	Observe all federal, state and local environmental regulations when disposing of this material.	

Midmark Corporation  
60 Vista Drive  
Versailles, OH 45380

Safety Data Sheet (SDS)  
OSHA HazCom Standard 29 CFR 1910.1200.

(Continued of page 7)

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

Un-cleaned packaging:

Recommendation:

Recommended cleansing agent:

Disposal must be made according to official regulations.

Water, if necessary with cleansing agents.

**SECTION 14 – TRANSPORT INFORMATION**

*UN-Number*

*DOT* UN3260

*ADR, IMDG, IATA* UN2967

*UN proper shipping name*

*DOT* Corrosive solid, acidic, inorganic, n.o.s. (sulfamic acid)

*ADR* UN2967 sulfamic acid, mixture

*IMDG, IATA* SULPHAMIC ACID, mixture

*Transport hazard class(es)*

*DOT*



*Class* 8 Corrosive substance

*Label* 8

*IMDG, IATA*



*Class* 8 (C2) Corrosive substance

*Label* 8



*Class* 8 Corrosive substance

*Label* 8

*Packing group*

*DOT, ADR, IMDG, IATA* Non-Regulated Material

*Environmental hazards:*

*Marine pollutant:* No

*Special precautions for user* Warning: Corrosive substances

*Danger code (Kemler):* 80

*EMS Number:* F-A, S-B

*Segregation groups:* Acids



Midmark Corporation  
60 Vista Drive  
Versailles, OH 45380

Safety Data Sheet (SDS)  
OSHA HazCom Standard 29 CFR 1910.1200.

<i>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:</i>	Not applicable	(Continued of page 8)
<i>Transport/Additional information:</i>		
<i>DOT</i>		
<i>Quantity limitations</i>	On passenger aircraft/rail: 25 kg On cargo aircraft only: 100 kg	
<i>ADR</i>		
<i>Excepted quantities (EQ)</i>	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g	
<i>IMDG</i>		
<i>Limited quantities (LQ)</i>	5 kg	
<i>Excepted quantities (EQ)</i>	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g	
<i>UN "Model Regulation":</i>	UN2967, Sulfamic acid, mixture, 8, III	

**SECTION 15 – REGULATORY INFORMATION**

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

Sara

*Section 355 (extremely hazardous substances):*

None of the ingredients are listed.

*Section 313 (Specific toxic chemical listings):*

None of the ingredients are listed.

*TSCA (Toxic Substances Control Act):*

All ingredients are listed.

*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.

*Carcinogenic categories*

EPA (Environmental Protection Agency)

None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

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

None of the ingredients is listed.

GHS label elements

The product is classified and labeled according to the Global Harmonized System (GHS).

Safety Data Sheet (SDS)  
OSHA HazCom Standard 29 CFR 1910.1200.

**Hazard pictograms**

(Continued of page 9)



GHS05



GHS07

Signal word: Danger

**Hazard statements**

Causes serious skin burn and eye damage.

**Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray.

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

Wash thoroughly after handling.

IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Specific treatment (see on this label).

IF INHALED: Move victim to fresh air and keep at rest in a position comfortable for breathing.

Wash contaminated clothing before reuse.

If eye irritation persists: Get medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

Immediately call a POISON CENTER/doctor.

**National Regulations**

The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.

**State Right to Know**

CAS No.	Description	% Range	GHS-US classification
CAS: 77-92-9	Citric acid	10-30%	Eye Irrit. 2, H319
CAS: 5329-14-6	Sulfamic acid	1-5%	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 3, H412
CAS: 25155-30-0	Benzenesulfonic acid	<1%	Eye Irrit. 2, H319
CAS: 532-32-1	Sodium Benzoate	<1%	Skin Irrit. 2, H315 Eye Irrit. 2, H319

All ingredients are listed.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

Midmark Corporation  
60 Vista Drive  
Versailles, OH 45380

Safety Data Sheet (SDS)  
OSHA HazCom Standard 29 CFR 1910.1200.

**SECTION 16 – OTHER INFORMATION**

*Abbreviations and acronyms:*

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
CAS:	Chemical Abstracts Service (division of the American Chemical Society)
NFPA:	National Fire Protection Association (USA)
HMIS:	Hazardous Materials Identification System (USA)
LCS0:	Lethal concentration, 50 percent
LD50:	Lethal dose, 50 percent
Skin Irrit. 2:	Skin corrosion/irritation
Eye Irrit. 2:	Serious eye damage/eye irritation
Aquatic Chronic 3:	Harmful to aquatic life with long lasting effects

Revision Summary                      Replaces Rev 4 issued on 08-February-2007. Complies with GHS OSHA requirements.

This information is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data, or the results to be obtained from use thereof. In no event will the manufacturer or distributor be responsible for damages of any nature whatsoever resulting from the use of, or reliance upon this information. General properties described herein are to be regarded as guides and are not guaranteed for all samples.