



1. Identification

Chemical Name. [182] MAGNUS TABS

CAS Number. Not applicable.

Recommendation for the chemical and restrictions on use

Applications Research and development only. This product is being sent to you as a Research and Development sample as defined by the Toxic Substances Control Act (TSCA) of 1976.

Manufacturer / Manufactured For

Magnus
3680 West Royal Lane Suite #155A
Irving, TX 75063
1-855-962-4687
www.magnusdist.com

Emergency telephone number

24 Hour Emergency Phone Number: Chemtrec 1-800-424-9300

2. Hazards

Classification of the substance or mixture

Classification May be harmful if swallowed (Category 5), H303.
May be harmful in contact with the skin (Category 5), H313.
Skin corrosion (Category 1A), H314.
Causes serious eye damage, (Category 1), H318.

Label elements

Pictogram



Signal word

Danger

Hazard Statements

H303- May be harmful if swallowed.
H313- May be harmful in contact with the skin.
H314- Skin corrosion.
H318- Causes serious eye damage.

Precautionary Statements

P260, Do not breathe dust/fume/gas/mist/vapours/spray.
P264, Wash hands thoroughly after handling.
P270, Do not eat, drink or smoke when using this product.



P280, Wear protective gloves/protective clothing/eye protection/face protection.
P310, Immediately call a POISON CENTER or doctor /physician.
P301+P330+ P331, IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353, P363, IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.
P304+P340,IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.
P305+ P351+P338, P405, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321, Specific treatment (see Section 4 on this SDS).
P322, Specific measures (see Section 4 on this SDS).
P363, Wash contaminated clothing before reuse.
P501, Dispose of contents/container to approve waste disposal plant.

3 - Composition/information on ingredients

Substances

Chemical Name. [182] MAGNUS TABS
Synonyms. None.
CAS Number. Not applicable. No data
Molecular Formula. available. No data
Molecular Weight. (g/mol) available.

Hazardous components

Composition of ingredients in the mixture:

Component	CAS Number	Concentration
Proprietary descaling agent	Proprietary (Trade secret)	5-20%
Sodium metasilicate	6834-92-0	5-30%
Sodium hydroxide	1310-73-2	30-60%
Sodium carbonate	497-19-8	10-40%



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Proprietary surfactant 1	Proprietary (Trade secret)	0.5-5%
Proprietary surfactant 2	Proprietary (Trade secret)	0.5-5%

Note: For the full text of the H-Statements mentioned in this Section, see Section 16.

Mixtures

This product is a mixture: The specific chemical name(s) and exact percentage (s) for some of the components have been withheld as trade secret in accordance with OSHA'S 29 CFR 1910.1200.

4 - First-aid measures

Description of first aid measures

General information

Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.

Inhalation

Remove from exposure, moving to fresh air. Artificial respiration and oxygen are necessary if not breathing. Consult a physician.

Ingestion

Wash out mouth with water if the person is conscious. Do not induce vomiting. Consult a physician.

Skin contact

Immediately wash skin with soap and copious amounts of water.

Eye contact

Immediately irrigate with copious amounts of water for 15 minutes. Consult a physician.

Protection of first-aiders

First aid personnel should wear appropriate protective equipment during any rescue.

Most important symptoms and effects, both acute and delayed

General information

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Indication of immediate medical attention and special treatment need



Notes for the doctor

The product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rale, frothy sputum, and high pulse pressure. Treat symptomatically.

5 - Fire-fighting measure

Extinguishing media

Suitable extinguisher media

Use alcohol-resistant foam, dry chemical, carbon dioxide or water spray.

Unsuitable extinguisher media

Use of water spray when fighting fire maybe inefficient.

Special hazards arising from the substance of mixture

Specific hazards

Sodium oxides. The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and /or explosion do not breathe fumes.

Advice for firefighters

Protective actions during firefighting

Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Avoid discharge to the aquatic environment. Control runoff water by containing and keeping it out of sewers and watercourses. If the risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighting

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots, and gloves provide a basic level of protection for chemical incidents.

6 - Accidental release measures

Personal precautions, protective equipment, and emergency procedures

Personal Precautions

Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into the spilled material.

Environmental precautions



Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleanup

Methods for cleaning

Contain and remove the spillage, soaking up the residue with non-flammable absorbent. Place in an adequate container for immediate disposal. Eliminate sources of ignition. For waste disposal see Section 13.

Reference to other sections

For personal protection see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For disposal see section 13.

7 - Handling and storage

Precautions for safe handling

Usage precautions

This product is for R+D only and it must be used by or directly under the supervision of a technically qualified individual(s) as defined by TSCA. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink, and animal feeding stuff. Keep container tightly sealed when not in use. Avoid discharge to the aquatic environment. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers. For precautions see Section 2.

Advice on general occupational hygiene

Promptly wash if in contact with skin. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse.

Conditions for safe storage, including any Incompatibilities

Storage precautions

Store away from incompatible materials (see Section 10). Keep only in the original container. Keep container tightly closed, in a dry well-ventilated place, avoiding direct sunlight. Keep containers upright. Protect containers from damage. Keep container tightly sealed, in a fireproof place.

Storage class

Miscellaneous hazardous material storage. Preferably in a well-ventilated cabinet.

Specific end uses



The identified uses for this product are in Section 1.

8 - Exposure controls/personal protection

Control parameters

Occupational exposure limits:

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium hydroxide 1310-73-2	Ceiling 2mg/m ³	TWA: 2mg/m ³ (Vacated) Ceiling 2mg/m ³	IDLH: 10 mg/m ³ Ceiling 2mg/m ³

Protective equipment



Engineering control measures

Room ventilation, local exhaust, and explosion-proof ventilation equipment are needed to keep levels below exposure limits.

Eye/Face protection

Wear safety glasses with side-shields.

Hand protection

Avoid skin contact. Wear protective clothes and solvent resistant gloves (nitrile).

Other skin and body protection

No data available.

Hygiene measures

Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.

Respiratory protection



Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with a multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environmental exposure

Not available.

9 - Physical and chemical properties

Appearance	White powder.	Water miscibility @ 20 °C, g/L	No data available.
Odor threshold	No data available.	Partition coefficient, log Pow @ 25 °C	No data available.
Melting point/Freezing point, °C	No data available.	Autoignition temperature, °C	No data available.
Boiling point, °C	No data available.	Dynamic viscosity @ 25 °C, cP	No data available.
Flash point	None.		
Vapor pressure @ 20 °C, kPa	No data available.		
Relative density @ 25 °C, g/cm³	NA.		

10 - Stability and reactivity

Reactivity	No data available.
Chemical stability	Stable under normal storage conditions.
Possibility of hazardous reactions	Hazardous polymerization do not occur under normal conditions.
Incompatible materials	Strong oxidizing agents. Strong bases. Strong acids. Aluminium.
Conditions to avoid	Exposure to air or moisture over prologed periods.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions may lead to toxic vapours and gases.

11 - Toxicological information

Acute toxicity - oral

Acute toxicity - oral (LD50,mg/kg)	Oral: 1153 (sodium metasilicate); 977 (Proprietary surfactant 2).
Species	Rat
Notes (oral LD50)	Maybe harmful if swallowed. ATE (oral) >4400 (estimated)



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Acute toxicity - dermal

Acute toxicity - dermal (LD50,mg/kg) 1350 (Sodium hydroxide (Rat)); >2000 (Proprietary surfactant 2).

Species Rabbit

Notes (Dermal LD50) Maybe harmful in contact with the skin. ATE (dermal) >3000 (estimated)

Acute toxicity - inhalation

Acute toxicity - inhalation (LC50,dust/mist mg/l) 1, 2h (Proprietary descaling agent); 2300, 2 h. (Sodium carbonate); 3.9, 1h (Proprietary surfactant 2)

Species Rat

Notes (Inhalation LD50) Maybe cause possibly severe irritation of respiratory track.

ATE inhalation (Dust/mists mg/l) >6 (estimated)

Skin corrosion/irritation

Result Causes burns. Extremely corrosive and destructive to tissue.

Serious eye damage/irritation

Result Risk of serious damage to eyes.

Respiratory sensitization

Result No data available.

Skin sensitization

Result No data available.

Germ cell mutagenicity

Genotoxicity - in vitro No data available.

Carcinogenicity

IARC No component of this product present at levels greater than or equal to 0.1% is identified as human carcinogen by IARC.

ACGIH No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

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

Specific target organ toxicity

STOT-single exposure No data available.



STOT-repeated exposure	Chronic exposure to corrosive fumes/ gases may cause longlasting effects, in mouth, respiratory and gastric systems.Avoid repeated exposure.
<u>Additional information</u>	
General information	This product is classified as hazardous.
Ingestion	May be harmful if swallowed.
Skin contact	Skin corrosion.
Eye contact	Causes serious eye irritation.
Route of entry	Ingestion, Inhalation, skin and/or eye contact.

12 - Ecological information

Toxicity

Ecotoxicity This product is regarded as harmful for aquatic life. Large or frequent spills may have dangerous effects on the environment.

Acute toxicity

Toxicity to fish LC50 (96h.) = 210 mg/l (Brachydanio rerio); Sodium metasilicate.
LC50 (96h.) = 45.6 mg/l (Oncorhynchus mykiss); Sodium hydroxide.
LC50 (96h.) = 300 mg/l (Lepomis macrochirus); Sodium carbonate.
LC50 (96h.) >100 mg/l (Fish); Proprietary surfactant 1.
LC50 (96h.) = 29 mg/l (Pimephales promelas); Proprietary surfactant 2.

Aquatic invertebrates EC50 (48h.) =216 mg/l (Daphnia magna); Sodium metasilicate.
EC50 (48h.) =265 mg/l (Daphnia magna); Sodium carbonate.
EC50 (48h.) =5.55 mg/l (Daphnia nubia); Proprietary surfactant 2.

Aquatic plants ErC50 (72 h.) = 120 mg/l (Desmodemus subspicatus); Sodium carbonate.
ErC50 (72 h.) > 120 mg/l (Desmodemus subspicatus); Proprietary surfactant 2.

Chronic toxicity

Toxicity to fish No data available.

Aquatic invertebrates No data available.



Aquatic plants	No data available.
<u>Persistency and biodegradability</u>	
Persistency and biodegradability	Components in this mixture are not persistent and easily to biodegradable.
Biological oxygen demand(mg/g)	No data available.
Chemical oxygen demand(mg/g)	No data available.
BOD/COD ratio	No data available.
Bioaccumulative potential	Components in the mixture are unlikely to bioaccumulate.
Mobility in soil	No data available.
Results of PBT and vPvB	No data available.
Other adverse effects	No da ta available.

13 - Disposal considerations

Waste treatment methods

General information

The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of safely. When handling waste, the safety precautions applying to the handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues.

Disposal methods

Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents. Incineration and landfill should only be considered when recycling is not feasible.

This product contains one or more substances that are listed with the State of California as hazardous waste:



Component California hazardous waste status
Sodium hydroxide 1310-73-2, Toxic and Corrosive
Sodium carbonate 497-19-8, Corrosive

14 - Transport information

DOT (US)	UN number: 1759 Class: 8 Packing group: II Proper shipping name: Corrosive solid, n.o.s. (Contains Sodium Hydroxide, Disodium Trioxosilicate) Reportable Quantity (RQ): 1000lb (Sodium Hydroxide) Poison Inhalation Hazard:
IMDG	UN number: 1759 Class: 8 Packing group: II EMS-No: F-E, S-D Proper shipping name: Corrosive solid, n.o.s. (Contains Sodium Hydroxide, Disodium Trioxosilicate)
IATA	UN number: 1759 Class: 8 Packing group: II Proper shipping name: Corrosive solid, n.o.s. (Contains Sodium Hydroxide, Disodium Trioxosilicate) Environmental hazards ADR/RID: no IMDG: no IATA: no

15 - Regulatory information

US Federal Regulations and state regulations

Components of the product are listed in the quoted regulations. For details, please refer to the regulations directly. This list is not exhaustive; please check for other applicable regulations.

This product has been classified by hazard criteria of the Controlled Products Regulations, and the SDS contains all the information required by the Controlled Products Regulations.

US Federal Regulations

SARA 302 Section 302 (Specific toxic chemical listings)

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA Section 311/312 (Specific toxic chemical listings)

Acute Health Hazard.

Chronic Health Hazard.

SARA Section 313 (Specific toxic chemical listings)

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

TSCA (Toxic Substances Control Act)

Components are listed on TSCA or subject to exemptions.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)

Sodium Hydroxide CAS: 1310-73-2

US State Regulations

Proposition 65 (California)

No data available.

Massachusetts Right to Know Components



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Sodium Hydroxide CAS: 1310-73-2

Sodium metasilicate CAS: 6834-92-0

Pennsylvania Right to Know Components

Sodium Hydroxide CAS: 1310-73-2

Sodium metasilicate CAS: 6834-92-0

New Jersey Right to Know Components

Sodium Hydroxide CAS: 1310-73-2

16 - Other information

Full text of H-Statements referred to under sections 2 and 3

H303 May be harmful if swallowed.

H313 May be harmful in contact with the skin.

H314 Skin corrosion.

H318 Causes serious eye damage.

GHS Column Model 2017 Classification

Acute health hazards (single exp) Medium

Chronic health hazards (repeated exp.) Medium

Environmental hazards Low

Physical-chemical hazards Low

Further Information

The information above is believed to be accurate and represents the best information available. However, we make no warranty of merchantability or any other warranty, express or implied, on such information and we assume no liability resulting from its use. Users should make their investigations to determine the suitability of the information for their purposes. In no event shall the Magnus be liable for any claims, losses or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages arising, even if the Magnus has been advised of the possibility of such damages.

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