



TUBMATE HEAVY DUTY IRON & STEEL CLEANER

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Date of issue: 4/28/2022 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product code : 1949HOT

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

KARCHER NORTH AMERICA
6398 N Karcher Way
Aurora, 80019
United States
T 303-738-2400
info@karcherna.com

1.4. Emergency telephone number

Emergency number : 800-535-5053
For Chemical Emergency Call INFOTRAC 24hr/day 7days/week
Within USA and Canada: 1-800-535-5053
Outside USA and Canada: 011-1-352-323-3500
(collect calls accepted)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture


GHS US classification

| | | |
|--|------|---|
| Acute toxicity (oral) Category 4 | H302 | Harmful if swallowed |
| Skin corrosion/irritation Category 1 | H314 | Causes severe skin burns and eye damage |
| Serious eye damage/eye irritation Category 1 | H318 | Causes serious eye damage |

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) : H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage

Precautionary statements (GHS US) : P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear protective gloves/protective clothing/eye protection, face protection.
P301+P312 - If swallowed: Call poison center/doctor if you feel unwell
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

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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 poison center/doctor
P330 - Rinse mouth.
P363 - Wash contaminated clothing before reuse.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local regulations

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : None under normal conditions.

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 | % |
|-------------------------|--------------------|---------------|
| SODIUM METASILICATE | CAS-No.: 6834-92-0 | 5 – 10 |
| FURFURYL ALCOHOL | CAS-No.: 98-00-0 | 5 – 10 |
| SODIUM XYLENE SULFONATE | CAS-No.: 1300-72-7 | 1 – 5 |
| TETRASODIUM EDTA | CAS-No.: 64-02-8 | 1.924 – 2.028 |

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 : Call a physician immediately.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after skin contact : Burns.
Symptoms/effects after eye contact : Serious damage to eyes.
Symptoms/effects after ingestion : Burns.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Fire hazard : Heating increases the fire hazard.
Explosion hazard : No direct explosion hazard.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Do not handle until all safety precautions have been read and understood.

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Absorb spilled material with sand or earth.
Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.
Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.
Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.
Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available

FURFURYL ALCOHOL (98-00-0)

No additional information available

SODIUM METASILICATE (6834-92-0)

No additional information available

SODIUM XYLENE SULFONATE (1300-72-7)

No additional information available

TETRASODIUM EDTA (64-02-8)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Liquid.
Color : Amber
Odor : Mild odour
Odor threshold : No data available
pH : 12.98

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| | |
|---|---------------------|
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| 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 | : No data available |
| Solubility | : No data available |
| Partition coefficient n-octanol/water (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 | : No data available |
| Oxidizing properties | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|-----------------------------|-------------------------|
| Acute toxicity (oral) | : Harmful if swallowed. |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Not classified |

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| | |
|---------------|----------------------------|
| ATE US (oral) | 1102.498 mg/kg body weight |
|---------------|----------------------------|

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| FURFURYL ALCOHOL (98-00-0) | |
|--|---|
| ATE US (oral) | 100 mg/kg body weight |
| ATE US (dermal) | 300 mg/kg body weight |
| ATE US (gases) | 700 ppmV/4h |
| ATE US (vapors) | 3 mg/l/4h |
| ATE US (dust, mist) | 0.5 mg/l/4h |
| SODIUM METASILICATE (6834-92-0) | |
| LD50 oral rat | 1152 – 1349 mg/kg body weight (Rat, Male / female, Experimental value, Oral, 7 day(s)) |
| LD50 dermal rat | > 5000 mg/kg body weight (EPA OPPTS 870.1200: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s)) |
| LC50 inhalation rat (mg/l) | > 2.06 mg/l (EPA OPPTS 870.1300: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s)) |
| ATE US (oral) | 1152 mg/kg body weight |
| SODIUM XYLENE SULFONATE (1300-72-7) | |
| LD50 oral rat | > 7000 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Read-across, Oral, 14 day(s)) |
| LD50 dermal rabbit | > 2000 mg/kg body weight (Equivalent or similar to OECD 402, Rabbit, Read-across, Dermal, 14 day(s)) |
| TETRASODIUM EDTA (64-02-8) | |
| LD50 oral rat | > 2000 mg/kg (Rat, Oral) |
| Skin corrosion/irritation | : Causes severe skin burns. pH: 12.98 |
| Serious eye damage/irritation | : Causes serious eye damage. pH: 12.98 |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| FURFURYL ALCOHOL (98-00-0) | |
| IARC group | 2B - Possibly carcinogenic to humans |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : Not classified |
| FURFURYL ALCOHOL (98-00-0) | |
| STOT-single exposure | May cause respiratory irritation. |
| SODIUM METASILICATE (6834-92-0) | |
| STOT-single exposure | May cause respiratory irritation. |
| STOT-repeated exposure | : Not classified |
| FURFURYL ALCOHOL (98-00-0) | |
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure. |
| SODIUM METASILICATE (6834-92-0) | |
| NOAEL (oral,rat,90 days) | 227 – 237 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents) |
| Aspiration hazard | : Not classified |

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| | |
|-------------------------------------|---------------------------|
| Viscosity, kinematic | : No data available |
| Symptoms/effects after skin contact | : Burns. |
| Symptoms/effects after eye contact | : Serious damage to eyes. |
| Symptoms/effects after ingestion | : Burns. |

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.

| SODIUM METASILICATE (6834-92-0) | |
|--|---|
| LC50 - Fish [1] | 210 mg/l (ISO 7346-1, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value) |
| EC50 - Daphnia [1] | 1700 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP) |
| SODIUM XYLENE SULFONATE (1300-72-7) | |
| LC50 - Fish [1] | > 1000 mg/l (EPA OTS 797.1400, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value) |
| EC50 - Daphnia [1] | > 1000 mg/l (EPA OTS 797.1300, 48 h, Daphnia magna, Static system, Fresh water, Experimental value) |
| TETRASODIUM EDTA (64-02-8) | |
| LC50 - Fish [1] | 121 mg/l (96 h, Lepomis macrochirus, Literature study, Soft water) |
| EC50 - Daphnia [1] | 625 mg/l (24 h, Daphnia magna, Literature study) |

12.2. Persistence and degradability

| SODIUM METASILICATE (6834-92-0) | |
|--|---|
| Persistence and degradability | Biodegradability: not applicable. |
| Chemical oxygen demand (COD) | Not applicable (inorganic) |
| ThOD | Not applicable (inorganic) |
| SODIUM XYLENE SULFONATE (1300-72-7) | |
| Persistence and degradability | Readily biodegradable in water. |
| TETRASODIUM EDTA (64-02-8) | |
| Persistence and degradability | Not readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | < 0.002 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 0.54 – 0.58 g O ₂ /g substance |

12.3. Bioaccumulative potential

| SODIUM METASILICATE (6834-92-0) | |
|---|---|
| Bioaccumulative potential | Bioaccumulation: not applicable. |
| SODIUM XYLENE SULFONATE (1300-72-7) | |
| Partition coefficient n-octanol/water (Log Pow) | -3.12 (Experimental value, EU Method A.8: Partition Coefficient, 20 °C) |
| Bioaccumulative potential | Not bioaccumulative. |

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TETRASODIUM EDTA (64-02-8)

| | |
|---|----------------------|
| Partition coefficient n-octanol/water (Log Pow) | -2.6 |
| Bioaccumulative potential | Not bioaccumulative. |

12.4. Mobility in soil

SODIUM METASILICATE (6834-92-0)

| | |
|-----------------|---|
| Surface tension | No data available in the literature |
| Ecology - soil | No (test)data on mobility of the substance available. |

SODIUM XYLENE SULFONATE (1300-72-7)

| | |
|-----------------|---|
| Surface tension | 71 mN/m (20 °C, 90 %, EU Method A.5: Surface tension) |
| Ecology - soil | No (test)data on mobility of the substance available. |

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional legislation (waste) : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

14.1. UN number

DOT NA No : UN1760

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Corrosive liquids, n.o.s. (SODIUM METASILICATE), 8, III

14.3. Transport hazard class(es)

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



14.4. Packing group

Packing group (DOT) : III

14.5. Environmental hazards

Other information : No supplementary information available.

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14.6. Special precautions for user

DOT
UN-No.(DOT) : UN1760

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

FURFURYL ALCOHOL (98-00-0)

Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

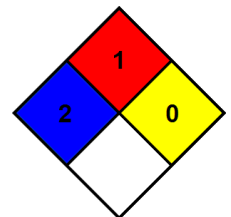
WARNING: This product can expose you to FURFURYL ALCOHOL, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

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 |

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.
NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating
Health : 2 Moderate Hazard - Temporary or minor injury may occur
Flammability : 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)
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.
Personal protection : X - Special handling directions

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.