



Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 05.23.2019

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Mako Orange Extreme

SECTION 1: Identification

Product identifier

Product name: Mako Orange Extreme

Product code: ST-310

Recommended use of the product and restriction on use

Relevant identified uses: Solvent Based Presoak

Uses advised against: NA

Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer:

United States

JBS Industries

2550 Henkle Drive

Lebanon, Ohio 45036

513-228-2800

SBAETEN@JBSINDUSTRIES.COM

Emergency telephone number:

North America

CHEMTREC

800-424-9300 (24 hours)

SECTION 2: Hazard(s) identification

GHS classification:

Skin corrosion, category 1A

Serious eye damage, category 1

Flammable liquids, category 4

Skin sensitization, category 1

Carcinogenicity, category 1A

Reproductive toxicity, category 1B

Specific target organ toxicity - repeated exposure, category 2

Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements:

H227 Combustible liquid

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- H314 Causes severe skin burns and eye damage
- H318 Causes serious eye damage
- H317 May cause an allergic skin reaction
- H350 May cause cancer.
- H360 May damage fertility or the unborn child.
- H373 May cause damage to organs through prolonged exposure.

Precautionary statements:

- P260 Do not breathe dust/fume/gas/mist/vapors/spray
- P280 Wear protective gloves/protective clothing/eye protection/face protection
- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking
- P272 Contaminated work clothing must not be allowed out of the workplace
- P202 Do not handle until all safety precautions have been read and understood
- 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
- P363 Wash contaminated clothing before reuse
- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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
- P370+P378 In case of fire: Use Carbon Dioxide to extinguish.
- P302+P352 IF ON SKIN: Wash with plenty of water.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention
- P314 Get medical advice/attention if you feel unwell
- P405 Store locked up
- P403+P235 Store in a well-ventilated place. Keep cool
- P501 It is the responsibility of the waste generator to characterize all waste material according to regulatory entities.

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 1310-73-2	Sodium hydroxide	<20
CAS number: 64-02-8	Tetrasodium ethylenediamine tetraacetate	<15
CAS number: 6834-92-0	Disodium metasilicate	<20
CAS number: 68603-42-9	Amides, coco, N,N-bis(hydroxyethyl)	<20
CAS number: 68584-22-5	Benzenesulfonic acid, C10-16-alkyl derivatives	<20
CAS number: 8028-48-6	Orange, sweet, ext.	<20

Additional Information: None

SECTION 4: First aid measures

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Description of first aid measures

General notes:

Show this Safety Data Sheet to attending Medical Professional

After inhalation:

If inhaled, move to fresh air. Get medical attention if symptoms persist

After skin contact:

Wash off immediately with soap and plenty of water while removing contaminated clothing and shoes. Continue rinsing for at least 15 minutes. See a physician if irritation persists

After eye contact:

Rinse cautiously with water for several minutes. Remove contact lenses, if present to do so. Protect unexposed eye. Continue rinsing. Get medical attention if irritation develops or persists

After swallowing:

If swallowed, DO NOT induce vomiting unless told to do so by physician or poison control center. Rinse mouth with water. Never give anything to drink to an unconscious person. Seek medical advice

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Symptoms may include blistering, irritation, burns and pain. Effects are dependent on exposure (dose, concentration, contact time)

Risk of blast injury if mishandled

Symptoms may include headache, nausea and/or dizziness

Skin: Symptoms may cause irritation, redness, pain and rash. Respiratory: Symptoms may include difficulty breathing, coughing, wheezing and tightness/closure of airway

Delayed symptoms and effects:

Symptoms of poisoning may appear several hours later

Immediate medical attention and special treatment

Specific treatment:

None known

Notes for the doctor:

Treat symptomatically

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Alcohol- resistant foam, Dry chemical or Carbon dioxide

Unsuitable extinguishing media:

High- volume water jet

Specific hazards during fire-fighting:

Evacuate all personnel to a predetermined safe location, no less than 2,500 feet in all directions. Can explode or detonate under fire conditions. Burning material may produce toxic vapors

Special protective equipment for firefighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA)

Special precautions:

Avoid inhaling gases, fumes, mist, dust, vapor or aerosols. Avoid contact with eyes, skin, hair or clothing
Eliminate all sources of ignition, heat, flames and other sources of heat

SECTION 6: Accidental release measures

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Personal precautions, protective equipment and emergency procedures:

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS

Environmental precautions:

Avoid release to the environment. Prevent soil and water pollution. Prevent spreading in sewers. Notify authorities if product enters sewers or public waters
Prevent from reaching drains, sewer or waterway
Keep material out of lakes, streams, ponds, and sewer drains

Methods and material for containment and cleaning up:

Carefully sweep material into a designated PLASTIC waste container. Collect in plastic containers only
Remove all sources of ignition, contain and collect spill
Contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal
Clean and neutralize spill area, tools and equipment by washing with water and soap. Absorb, reinstate and add to the collected waste. Waste must be classified and labeled prior to recycling or disposal. Dispose of waste as indicated in Section 13

Reference to other sections:

For further information refer to section 7 and section 13
For personal protection see section 8

SECTION 7: Handling and storage

Precautions for safe handling:

Avoid breathing dust/ fume/ gas/mist/vapors/spray. Keep away from all sources of ignition. Avoid contact with skin and eyes.

Wear gloves and eye protection when handling, moving or using this product. Do not contaminate water, food, or feed by storage or disposal.

Avoid skin and eye contact and breathing in vapour. All potential sources of ignition (open flames, pilot lights, furnaces, spark producing switches and electrical equipment etc) must be eliminated both in and near the work area. Do NOT smoke. Take precautionary measures against static discharges. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities:

Store in cool and dry location and out of direct sunlight. Store away from sources of heat or ignition. Store away from incompatible materials described in Section 10. Keep containers closed when not in use. Keep away from food and beverages. Protect from freezing and physical damage.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
ACGIH	Sodium hydroxide	1310-73-2	Ceiling Limit: 2 mg/m ³
OSHA	Sodium hydroxide	1310-73-2	8-Hour TWA-PEL: 2 mg/m ³
NIOSH	Sodium hydroxide	1310-73-2	Ceiling Limit: 2 mg/m ³ (REL)
	Sodium hydroxide	1310-73-2	IDLH: 10 mg/m ³

Biological limit values:

No biological exposure limits noted for the ingredient(s).

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Information on monitoring procedures:

Not determined or not applicable.

Appropriate engineering controls:

Effective ventilation in all processing areas.

Personal protection equipment

Eye and face protection:

Safety goggles or safety glasses with side shields

Skin and body protection:

Chemical resistant clothing and gloves

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory protection

General hygienic measures:

Handle in accordance with good industrial hygiene and safety measures. Wash hands and face after handling chemical products. Wash hands before eating, drinking and smoking. Wash hands at the end of the workday.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Liquid
Odor	Std.
Odor threshold	Not determined or not available.
pH	11
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	Not determined or not available.
Flash point (closed cup)	Not determined or not available.
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	Not determined or not available.
Vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	Not determined or not available.
Solubilities	Not determined or not available.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

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SECTION 10: Stability and reactivity

Reactivity:

Stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability:

Stable under normal storage and handling conditions.

Possibility of hazardous reactions:

Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid:

Avoid heat, sparks, open flames and other ignition sources.

Incompatible materials.

Incompatible materials:

Strong oxidizing agents and strong acids.

Hazardous decomposition products:

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

SECTION 11: Toxicological information

Acute toxicity

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

Product data: No data available.

Substance data:

Name	Route	Result
Tetrasodium ethylenediamine tetraacetate	oral	LD50 mouse: 1210 mg/kg
Benzenesulfonic acid, C10-16-alkyl derivatives	inhalation	LC50 Rat: 1.9 mg/L (4 Hr)
	dermal	LD50 Rabbit: 5000 mg/kg

Skin corrosion/irritation**Assessment:**

Causes severe skin burns and eye damage.

Product data:

No data available.

Substance data:

Name	Result
Sodium hydroxide	Corrosive to the skin.
Disodium metasilicate	Causes severe skin burns and eye damage.
Amides, coco, N,N-bis(hydroxyethyl)	Causes skin irritation.
Benzenesulfonic acid, C10-16-alkyl derivatives	Causes severe skins burns and eye damage.
Orange, sweet, ext.	Causes skin irritation.

Serious eye damage/irritation**Assessment:**

Causes serious eye damage.

Product data:

No data available.

Substance data:

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Name	Result
Sodium hydroxide	Corrosive effect on the eyes.
Tetrasodium ethylenediamine tetraacetate	Causes serious eye damage.
Amides, coco, N,N-bis(hydroxyethyl)	Causes serious eye irritation.
Benzenesulfonic acid, C10-16-alkyl derivatives	Causes serious eye damage.

Respiratory or skin sensitization

Assessment:

May cause an allergic skin reaction.

Product data:

No data available.

Substance data:

Name	Result
Orange, sweet, ext.	May cause an allergic skin reaction.

Carcinogenicity

Assessment:

May cause cancer.

Product data: No data available.

Substance data: No data available.

International Agency for Research on Cancer (IARC): None of the ingredients are listed.

National Toxicology Program (NTP): None of the ingredients are listed.

Germ cell mutagenicity

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

Product data:

No data available.

Substance data: No data available.

Reproductive toxicity

Assessment:

May damage fertility or the unborn child.

Product data:

No data available.

Substance data: No data available.

Specific target organ toxicity (single exposure)

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

Product data:

No data available.

Substance data:

Name	Result
Disodium metasilicate	May cause respiratory irritation.

Specific target organ toxicity (repeated exposure)

Assessment:

May cause damage to organs through prolonged or repeated exposure.

Product data:

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No data available.

Substance data: No data available.

Aspiration toxicity

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

Product data:

No data available.

Substance data:

Name	Result
Orange, sweet, ext.	Maybe fatal if swallowed and enters airways.

Information on likely routes of exposure:

No data available.

Symptoms related to the physical, chemical and toxicological characteristics:

No data available.

Other information:

No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity

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

Product data: No data available.

Substance data: No data available.

Chronic (long-term) toxicity

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

Product data: No data available.

Substance data: No data available.

Persistence and degradability

Product data: No data available.

Substance data:

Name	Result
Tetrasodium ethylenediamine tetraacetate	Biodegradable, but not ready biodegradable.
Disodium metasilicate	No biodegradation since inorganic substance.
Benzenesulfonic acid, C10-16-alkyl derivatives	Under test conditions no biodegradation observed.
Orange, sweet, ext.	Readily biodegradable.

Bioaccumulative potential

Product data: No data available.

Substance data:

Name	Result
Sodium hydroxide	The substance has a low potential for bioaccumulation.
Tetrasodium ethylenediamine tetraacetate	The projected equilibrium BCF values were similar to those observed in the plateau test and, again, serve to emphasize the extremely low bioconcentration potential of EDTA.
Disodium metasilicate	Bioaccumulation is expected.

Mobility in soil

Product data: No data available.

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Substance data:

Name	Result
Tetrasodium ethylenediamine tetraacetate	The extent of absorption of EDTA on container walls and humic acid, silica, kaolin, river sediment and humus solids was measured and was found to be negligible.

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:

It is the responsibility of the waste generator to characterize all waste materials according to applicable regulatory entities

Contaminated packages: Not determined or not applicable.

SECTION 14: Transport information

United States Transportation of dangerous goods (49 CFR DOT)

UN number	Not Registered
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

1310-73-2	Sodium hydroxide	Listed
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64-02-8	Tetrasodium ethylenediamine tetraacetate	Listed
6834-92-0	Disodium metasilicate	Listed
68603-42-9	Amides, coco, N,N-bis(hydroxyethyl)	Listed
68584-22-5	Benzenesulfonic acid, C10-16-alkyl derivatives	Listed
8028-48-6	Orange, sweet, ext.	Not Listed

Significant New Use Rule (TSCA Section 5): Not determined.

Export notification under TSCA Section 12(b): Not determined.

SARA Section 302 extremely hazardous substances: Not determined.

SARA Section 313 toxic chemicals:

1310-73-2	Sodium hydroxide	Not Listed
64-02-8	Tetrasodium ethylenediamine tetraacetate	Not Listed
6834-92-0	Disodium metasilicate	Not Listed
68603-42-9	Amides, coco, N,N-bis(hydroxyethyl)	Not Listed
68584-22-5	Benzenesulfonic acid, C10-16-alkyl derivatives	Not Listed
8028-48-6	Orange, sweet, ext.	Not Listed

CERCLA:

1310-73-2	Sodium hydroxide	Listed	1000 lbs
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RCRA: Not determined.

Section 112(r) of the Clean Air Act (CAA): Not determined.

Massachusetts Right to Know:

1310-73-2	Sodium hydroxide	Listed
64-02-8	Tetrasodium ethylenediamine tetraacetate	Not Listed
6834-92-0	Disodium metasilicate	Not Listed
68603-42-9	Amides, coco, N,N-bis(hydroxyethyl)	Not Listed
68584-22-5	Benzenesulfonic acid, C10-16-alkyl derivatives	Not Listed
8028-48-6	Orange, sweet, ext.	Not Listed

New Jersey Right to Know:

1310-73-2	Sodium hydroxide	Listed
64-02-8	Tetrasodium ethylenediamine tetraacetate	Listed
6834-92-0	Disodium metasilicate	Not Listed
68603-42-9	Amides, coco, N,N-bis(hydroxyethyl)	Not Listed

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68584-22-5	Benzenesulfonic acid, C10-16-alkyl derivatives	Not Listed
8028-48-6	Orange, sweet, ext.	Not Listed

New York Right to Know:

1310-73-2	Sodium hydroxide	Listed
64-02-8	Tetrasodium ethylenediamine tetraacetate	Not Listed
6834-92-0	Disodium metasilicate	Not Listed
68603-42-9	Amides, coco, N,N-bis(hydroxyethyl)	Not Listed
68584-22-5	Benzenesulfonic acid, C10-16-alkyl derivatives	Not Listed
8028-48-6	Orange, sweet, ext.	Not Listed

Pennsylvania Right to Know:

1310-73-2	Sodium hydroxide	Listed
64-02-8	Tetrasodium ethylenediamine tetraacetate	Listed
6834-92-0	Disodium metasilicate	Not Listed
68603-42-9	Amides, coco, N,N-bis(hydroxyethyl)	Not Listed
68584-22-5	Benzenesulfonic acid, C10-16-alkyl derivatives	Not Listed
8028-48-6	Orange, sweet, ext.	Not Listed

California Proposition 65:

⚠️WARNING: This product can expose you to Amides, coco, N,N-bis(hydroxyethyl), which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov

SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal 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, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

NFPA: 0-0-0

HMIS: 0-0-0

Initial preparation date: 05.23.2019

End of Safety Data Sheet