



ORANGE ACTION 2

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 05/06/2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Identification

Product form : Mixture
Product name : ORANGE ACTION 2
Product code : 0-227

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Degreasing agent

1.3. Details of the supplier of the safety data sheet

MAINTENANCE SOLUTIONS, INC.
7755 East Gelding #C103
Scottsdale, AZ
F 480-688-9745 - T 480-607-9593

1.4. Emergency telephone number

Emergency number : 800-255-3924

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin Irrit. 2 Causes skin irritation
Eye Dam. 1 Causes serious eye damage
Skin Sens. 1 May cause an allergic skin reaction

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : Causes skin irritation
May cause an allergic skin reaction
Causes serious eye damage
Precautionary statements (GHS-US) : Avoid breathing vapours, spray, mist
Wash hands thoroughly after handling
Contaminated work clothing must not be allowed out of the workplace
Wear eye protection, protective gloves
If on skin: Wash with plenty of water
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a doctor
Specific treatment (see first aid section on this label. on this label)
If skin irritation or rash occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
Dispose of contents/container to an approved waste disposal plant

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

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Name	Product identifier	%	GHS-US classification
D-limonene	(CAS No) 5989-27-5	4 - 6	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
disodium metasilicate, pentahydrate	(CAS No) 10213-79-3	4 - 6	Skin Corr. 1B, H314 STOT SE 3, H335
EDTA; tetrasodium ethylenediaminetetracetate	(CAS No) 64-02-8	2 - 4	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
sodium xylenesulfonate	(CAS No) 1300-72-7	2 - 3	Skin Irrit. 2, H315 STOT SE 3, H335 Eye Irrit. 2A, H319
TKPP tetrapotassium pyrophosphate, anhydrous	(CAS No) 7320-34-5	0.5 - 1.5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Allow breathing of fresh air. Allow the victim to rest.
- First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. Wash contaminated clothing before reuse. Specific treatment (see Wash immediately with lots of water on this label). If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : May cause an allergic skin reaction.
- Symptoms/injuries after skin contact : Causes skin irritation.
- Symptoms/injuries after eye contact : Causes serious eye damage.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.
Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. No open flames. No smoking. Take precautionary measures against static discharge. Avoid breathing spray, mist, vapours.
Hygiene measures : Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Heat sources. Keep container tightly closed.
Incompatible products : Strong bases. Strong acids.
Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Personal protective equipment : Safety glasses. Gloves.



Hand protection : Wear protective gloves.
Eye protection : Chemical goggles or safety glasses.
Skin and body protection : Wear suitable protective clothing.
Respiratory protection : Wear appropriate mask.
Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Colour : Orange
Odour : Citrus fruits
Odour threshold : No data available
pH : 12 - 13
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : No data available
Relative evaporation rate (butylacetate=1) : No data available
Flammability (solid, gas) : No data available
Explosive limits : No data available
Explosive properties : No data available

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Oxidising properties	: No data available
Vapour pressure	: No data available
Relative density	: No data available
Relative vapour density at 20 °C	: No data available
Solubility	: Water: Solubility in water of component(s) of the mixture : • TALL OIL fatty acids: 0.0009 g/100ml • EDTA; tetrasodium ethylenediaminetetracetate: 103 g/100ml • nonylphenoxypoly(ethyleneoxy)ethanol: soluble • TSP trisodium orthophosphate, dodecahydrate: 12 g/100ml • butyl glycoether: Complete • D-limonene: insoluble • TKPP tetrapotassium pyrophosphate, anhydrous: 187 g/100ml • disodium metasilicate, pentahydrate: 17.5 g/100ml
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

EDTA; tetrasodium ethylenediaminetetracetate (64-02-8)	
LD50 oral rat	> 2000 mg/kg (Rat)
ATE US (oral)	500.000 mg/kg bodyweight
D-limonene (5989-27-5)	
LD50 oral rat	4400 mg/kg bodyweight (Rat; OECD 423: Acute Oral Toxicity – Acute Toxic Class Method; Literature study; > 2000 mg/kg bodyweight; Rat; Read-across)
LD50 dermal rabbit	> 5000 mg/kg bodyweight (Rabbit; Weight of evidence; Equivalent or similar to OECD 402)
ATE US (oral)	4400.000 mg/kg bodyweight
TKPP tetrapotassium pyrophosphate, anhydrous (7320-34-5)	
LD50 dermal rabbit	> 4640 mg/kg (Rabbit)

Skin corrosion/irritation	: Causes skin irritation. pH: 12 - 13
Serious eye damage/irritation	: Causes serious eye damage. pH: 12 - 13
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified

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Carcinogenicity : Not classified

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IARC group : 3 - Not classifiable

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/injuries after inhalation : May cause an allergic skin reaction.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes serious eye damage.

SECTION 12: Ecological information

12.1. Toxicity

EDTA; tetrasodium ethylenediaminetetracetate (64-02-8)

LC50 fish 1 : 121 mg/l (LC50; 96 h)

EC50 Daphnia 1 : 625 mg/l (EC50; 24 h)

Threshold limit algae 1 : > 100 mg/l (EC0; 72 h)

D-limonene (5989-27-5)

LC50 fish 1 : 720 µg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)

EC50 Daphnia 1 : 0.36 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)

Threshold limit algae 1 : 150 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Desmodesmus subspicatus; Static system; Fresh water; Read-across)

TKPP tetrapotassium pyrophosphate, anhydrous (7320-34-5)

LC50 fish 1 : > 750 mg/l (LC50; 48 h)

disodium metasilicate, pentahydrate (10213-79-3)

LC50 fish 1 : 210 mg/l (LC50; 96 h)

EC50 Daphnia 1 : 216 mg/l (EC50; 96 h)

12.2. Persistence and degradability

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Persistence and degradability : Not established.

EDTA; tetrasodium ethylenediaminetetracetate (64-02-8)

Persistence and degradability : Not readily biodegradable in water. Not established.

Biochemical oxygen demand (BOD) : < 0.002 g O₂/g substance

Chemical oxygen demand (COD) : 0.54 - 0.58 g O₂/g substance

D-limonene (5989-27-5)

Persistence and degradability : Readily biodegradable in water. Forming sediments in water. Adsorbs into the soil. Not established.

ThOD : 3.29 g O₂/g substance

TKPP tetrapotassium pyrophosphate, anhydrous (7320-34-5)

Persistence and degradability : Biodegradability: not applicable. Not established.

Biochemical oxygen demand (BOD) : Not applicable

Chemical oxygen demand (COD) : Not applicable

ThOD : Not applicable

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sodium xylenesulfonate (1300-72-7)	
Persistence and degradability	Biodegradability in water: no data available. Not established.
disodium metasilicate, pentahydrate (10213-79-3)	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.
EDTA; tetrasodium ethylenediaminetetracetate (64-02-8)	
Log Pow	-2.6
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
D-limonene (5989-27-5)	
BCF fish 1	864.8 - 1022 (BCF; Pisces)
Log Pow	4.38 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 37 °C)
Bioaccumulative potential	Potential for bioaccumulation ($4 \geq \text{Log Kow} \leq 5$). Not established.
TKPP tetrapotassium pyrophosphate, anhydrous (7320-34-5)	
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
sodium xylenesulfonate (1300-72-7)	
Bioaccumulative potential	No bioaccumulation data available. Not established.
disodium metasilicate, pentahydrate (10213-79-3)	
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

D-limonene (5989-27-5)	
Log Koc	Koc, SRC PCKOCWIN v2.0; 1120 - 6324; QSAR

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.
Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Additional information : Handle empty containers with care because residual vapours are flammable.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT
Not regulated for transport

TDG

No additional information available

Transport by sea

UN-No. (IMDG) : 1824
Proper Shipping Name (IMDG) : SODIUM HYDROXIDE SOLUTION
Class (IMDG) : 8 - Corrosive substances
Packing group (IMDG) : III - substances presenting low danger

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Air transport

UN-No. (IATA) : 1824
Proper Shipping Name (IATA) : Sodium hydroxide solution
Class (IATA) : 8 - Corrosives
Packing group (IATA) : III - Minor Danger

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 except for:

disodium metasilicate, pentahydrate	CAS No 10213-79-3	4 - 6%
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This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

SECTION 16: Other information

Other information : None.

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Full text of H-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Flam. Liq. 3	Flammable liquids, Category 3
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H226	Flammable liquid and vapour
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

NFPA health hazard

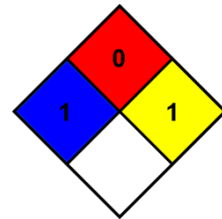
: 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard

: 0 - Materials that will not burn.

NFPA reactivity

: 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.



HMIS III Rating

Health

: 1 Slight Hazard - Irritation or minor reversible injury possible

Flammability

: 0 Minimal Hazard - Materials that will not burn

Physical

: 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

Personal Protection

: B

B - Safety glasses, Gloves

SDS US (GHS HazCom 2012)

No representation or warranty, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature, is made with respect to information concerning the product referred to in this document. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, it is impossible to foresee every health effect or exposure risk incurred by the use of this product. All chemicals present some degree of hazard and should be used with caution. The information and recommendations contained herein are presented in good faith. The user should review this information in conjunction with their knowledge of the application intended to determine the suitability of this product for such purpose. In no event will the supplier be responsible for any damages of any nature whatsoever, resulting from the use, reliance upon, or the misuse of this information. Furthermore, it is the direct responsibility of the user to comply with all applicable regulations governing the use and disposal of this material.