

**SAFETY DATA SHEET**

Revision Date: 09/21/2017

Print Date: 3/7/2018

SDS Number: R0718422

Version: 1.3

Easy-wet™ 20 Wetting Agents
™ Trademark, Ashland or its subsidiaries, registered
in various countries
827529

29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**Product identifier**

Trade name : Easy-wet™ 20
Wetting Agents
™ Trademark, Ashland or its subsidiaries, registered in
various countries

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

Recommended use : Surfactant

Details of the supplier of the safety data sheet

Ashland
P.O. Box 2219
Columbus, OH 43216
United States of America (USA)
614-790-3333

EHSProductSafety@ashland.com

Emergency telephone number

1-800-ASHLAND (1-800-274-5263)

Regulatory Information Number

1-800-325-3751

Product Information

614-790-3333

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Skin corrosion : Category 1

Serious eye damage : Category 1

Skin sensitization : Category 1

GHS label elements

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Causes severe skin burns and eye damage.

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May cause an allergic skin reaction.

Precautionary Statements**: Prevention:**

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

Wash skin thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

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

Response:

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

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

Wash contaminated clothing before reuse.

Storage:

Store locked up.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Defatter

Hazardous components

Chemical name	CAS-No.	Classification	Concentration (%)
UNDECYL ALCOHOL + 5 EO POLYETHOXYLATE	34398-01-1	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2A; H319	64.60
1-OCTYL-2-PYRROLIDONE	2687-94-7	Skin Corr. 1B; H314	19.00



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		Eye Dam. 1; H318	
1-UNDECANOL	112-42-5	Eye Irrit. 2A; H319	11.40
SODIUM LAURYL SULFATE	151-21-3	Flam. Sol. 2; H228 Comb Dust Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318	1.50

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
 Consult a physician.
 Show this safety data sheet to the doctor in attendance.
 Do not leave the victim unattended.
- If inhaled : Move to fresh air.
 If breathed in, move person into fresh air.
 Keep patient warm and at rest.
 If unconscious, place in recovery position and seek medical advice.
 If symptoms persist, call a physician.
- In case of skin contact : Remove contaminated clothing. If irritation develops, get medical attention.
 If on skin, rinse well with water.
 Wash contaminated clothing before re-use.
- In case of eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 Continue rinsing eyes during transport to hospital.
 Remove contact lenses.
 Protect unharmed eye.
- If swallowed : Get medical attention immediately.
 Do NOT induce vomiting.
 Rinse mouth with water.



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Do not give milk or alcoholic beverages.
 Never give anything by mouth to an unconscious person.
 If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed : Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:
 stomach or intestinal upset (nausea, vomiting, diarrhea)
 irritation (nose, throat, airways)
 May cause an allergic skin reaction.
 Causes serious eye damage.
 Causes severe burns.

Notes to physician : No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
 Water spray
 Foam
 Carbon dioxide (CO2)
 Dry chemical

Unsuitable extinguishing media : High volume water jet

Specific hazards during firefighting : If product is heated above its flash point it will produce vapors sufficient to support combustion. Vapors are heavier than air and may travel along the ground and be ignited by heat, pilot lights, other flames and ignition sources at locations near the point of release.
 Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : Carbon monoxide
 undefined organics
 carbon dioxide and carbon monoxide
 sulfur oxides
 Sodium oxides

Specific extinguishing methods :

Product is compatible with standard fire-fighting agents.

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- Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.
- Other information : Comply with all applicable federal, state, and local regulations.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Do not breathe vapours/dust.
Do not smoke.
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Container hazardous when empty.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and



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kept upright to prevent leakage.
 Observe label precautions.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Hazardous components without workplace control parameters

Components	CAS-No.
UNDECYL ALCOHOL + 5 EO POLYETHOXYLATE	34398-01-1
1-OCTYL-2-PYRROLIDONE	2687-94-7
1-UNDECANOL	112-42-5
SODIUM LAURYL SULFATE	151-21-3

Engineering measures : Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

Hand protection

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Wear chemical splash goggles and face shield when there is potential for exposure of the eyes or face to liquid, vapor or mist.
 Maintain eye wash station in immediate work area.

Skin and body protection : Wear as appropriate:
 Impervious clothing
 Chemical resistant apron
 Safety shoes
 Choose body protection according to the amount and concentration of the dangerous substance at the work place.
 Discard gloves that show tears, pinholes, or signs of wear.
 Wear resistant gloves (consult your safety equipment supplier).

Hygiene measures : Wash hands before breaks and at the end of workday.
 When using do not eat or drink.
 Ensure that eyewash stations and safety showers are close to the workstation location.

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When using do not smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: liquid
Colour	: colourless
Odour	: odourless
Odour Threshold	: No data available
pH	: 4 - 7
Melting point/freezing point	: 41 °F / 5 °C
Boiling point/boiling range	: 300.0 °F / 148.9 °C
Flash point	: 142.2 °C(Estimated)
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: < 0.013 hPa (37.8 °C)
Relative vapour density	: No data available
Relative density	: No data available
Density	: 0.93 g/cm3 (20 °C)
Solubility(ies)	
Water solubility	: soluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available

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Thermal decomposition : No data available

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : Stable under recommended storage conditions.

Possibility of hazardous reactions : Product will not undergo hazardous polymerization.

Conditions to avoid : excessive heat
temperature extremes

Incompatible materials : Alcohols
amines
Copper alloys
Oxidizing agents
Strong acids
strong bases
strong reducing agents

Hazardous decomposition products : carbon dioxide and carbon monoxide
Carbon monoxide
Hydrocarbons
Sodium oxides
Sulphur oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation
Skin contact
Eye Contact
Ingestion

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Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Components:**UNDECYL ALCOHOL + 5 EO POLYETHOXYLATE:**

Acute oral toxicity : LD50 (Rat): > 1,600 mg/kg

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

1-OCTYL-2-PYRROLIDONE:

Acute oral toxicity : LD50 (Rat): > 2,200 mg/kg
 Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rat): > 4,000 mg/kg
 Method: OECD Test Guideline 402

1-UNDECANOL:

Acute oral toxicity : LD50 (Rat): > 15,800 mg/kg

Acute inhalation toxicity : LC50 (Rat, male): > 700 mg/m³
 Exposure time: 6 h
 Test atmosphere: vapour
 Assessment: The component/mixture is minimally toxic after short term inhalation.

Acute dermal toxicity : LD50 (Rabbit): > 5,010 mg/kg

SODIUM LAURYL SULFATE:

Acute oral toxicity : LD50 (Rat): 1,200 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
 Assessment: Not classified as acutely toxic by dermal absorption under GHS.

Skin corrosion/irritation

Causes severe burns.

Product:

Result: Corrosive to skin

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Result: Repeated exposure may cause skin dryness or cracking.

Remarks: May cause skin irritation in susceptible persons., Causes severe skin burns and eye damage.

Components:

UNDECYL ALCOHOL + 5 EO POLYETHOXYLATE:

Result: Irritating to skin.

1-OCTYL-2-PYRROLIDONE:

Species: Rabbit

Method: OECD Test Guideline 404

Result: Corrosive after 3 minutes to 1 hour of exposure

1-UNDECANOL:

Species: human skin

Method: OECD Test Guideline 404

SODIUM LAURYL SULFATE:

Species: Rabbit

Result: Irritating to skin.

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Result: Corrosive

Remarks: May cause irreversible eye damage.

Components:

UNDECYL ALCOHOL + 5 EO POLYETHOXYLATE:

Result: Severely irritating to eyes

1-OCTYL-2-PYRROLIDONE:

Species: Rabbit

Result: Corrosive

1-UNDECANOL:

Species: Rabbit

Result: Irritating to eyes.

SODIUM LAURYL SULFATE:

Result: Corrosive



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Respiratory or skin sensitisation

Skin sensitisation: May cause an allergic skin reaction.

Respiratory sensitisation: Not classified based on available information.

Product:

Assessment: May cause sensitisation by skin contact.

Components:

UNDECYL ALCOHOL + 5 EO POLYETHOXYLATE:

Assessment: Did not cause sensitisation on laboratory animals.

1-OCTYL-2-PYRROLIDONE:

Test Type: Maximisation Test

Species: Guinea pig

Method: OECD Test Guideline 406

Result: Did not cause sensitisation on laboratory animals.

SODIUM LAURYL SULFATE:

Test Type: Local lymph node assay

Species: Mouse

Result: Does not cause skin sensitisation.

Germ cell mutagenicity

Not classified based on available information.

Product:

Genotoxicity in vitro : Test Type: Ames test
 Result: negative

: Test Type: Chromosome aberration test in vitro
 Result: negative

Components:

UNDECYL ALCOHOL + 5 EO POLYETHOXYLATE:

Genotoxicity in vitro : Remarks: In vitro tests did not show mutagenic effects

Genotoxicity in vivo : Result: In vivo tests did not show any chromosomal changes.

1-OCTYL-2-PYRROLIDONE:

Genotoxicity in vitro : Test Type: Ames test
 Test species: Salmonella typhimurium
 Metabolic activation: with and without metabolic activation
 Method: OECD Test Guideline 471
 Result: negative

: Test Type: Ames test



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Test species: Escherichia coli
 Metabolic activation: with and without metabolic activation
 Method: OECD Test Guideline 471
 Result: negative

: Test Type: Chromosome aberration test in vitro
 Test species: Chinese hamster lung cells
 Metabolic activation: with and without metabolic activation
 Method: OECD Test Guideline 473
 Result: negative

: Test Type: In vitro mammalian cell gene mutation test
 Test species: mouse lymphoma cells
 Metabolic activation: with and without metabolic activation
 Method: OECD Test Guideline 476
 Result: negative

Genotoxicity in vivo

: Test Type: In vivo micronucleus test
 Test species: Mouse
 Cell type: Bone marrow
 Method: OECD Test Guideline 474
 Result: negative

1-UNDECANOL: Genotoxicity in vitro

: Test Type: Ames test
 Test species: Salmonella typhimurium
 Metabolic activation: with and without metabolic activation
 Method: OECD Test Guideline 471
 Result: negative
 Remarks: Information given is based on data obtained from similar substances.

: Test Type: In vitro mammalian cell gene mutation test
 Test species: mouse lymphoma cells
 Metabolic activation: with and without metabolic activation
 Method: OECD Test Guideline 476
 Result: negative
 Remarks: Information given is based on data obtained from similar substances.

: Test Type: Chromosome aberration test in vitro
 Test species: Chinese hamster ovary cells
 Metabolic activation: with and without metabolic activation
 Method: OECD Test Guideline 473
 Result: negative
 Remarks: Information given is based on data obtained from similar substances.



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Genotoxicity in vivo : Test Type: chromosome aberration assay
 Test species: Mouse
 Cell type: Bone marrow
 Method: OECD Test Guideline 474
 Result: negative

Germ cell mutagenicity-
 Assessment : In vitro tests did not show mutagenic effects, In vivo tests did
 not show mutagenic effects

SODIUM LAURYL SULFATE:

Genotoxicity in vitro : Test Type: Ames test
 Test species: Escherichia coli
 Metabolic activation: with and without metabolic activation
 Result: negative

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

Components:

1-OCTYL-2-PYRROLIDONE:

Effects on fertility : Species: Rat, female
 Application Route: Oral
 General Toxicity - Parent: No observed adverse effect level:
 100 mg/kg bw/day
 Method: OECD Test Guideline 415

Species: Rat, male
 Application Route: Oral
 General Toxicity - Parent: No observed adverse effect level:
 1,000 mg/kg bw/day
 Method: OECD Test Guideline 415

Species: Rat, male and female
 Application Route: Oral
 General Toxicity F1: No observed adverse effect level: 300
 mg/kg bw/day
 Fertility: No observed adverse effect level: 1,000 mg/kg
 bw/day
 Method: OECD Test Guideline 415

Effects on foetal
 development : Species: Rat
 General Toxicity Maternal: No observed adverse effect level:
 200 mg/kg bw/day
 Teratogenicity: No observed adverse effect level: 800 mg/kg
 bw/day



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Embryo-foetal toxicity: No observed adverse effect level: 200
 mg/kg bw/day
 Method: OECD Test Guideline 414

1-UNDECANOL:

Reproductive toxicity -
 Assessment

: Weight of evidence does not support classification for
 reproductive toxicity
 Did not show teratogenic effects in animal experiments.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

1-OCTYL-2-PYRROLIDONE:

Species: Rat, male and female

NOEL: 33 - 69 mg/kg

Application Route: Oral

Exposure time: 90-day

Species: Rat, females

No observed adverse effect level: 100 mg/kg

Method: OECD Test Guideline 415

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks: No data available

Carcinogenicity:

IARC

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

OSHA

No component of this product present at levels greater than or
 equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No component of this product present at levels greater than or
 equal to 0.1% is identified as a known or anticipated carcinogen
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SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Product:**

Ecotoxicology Assessment

Acute aquatic toxicity : Acute aquatic toxicity Category 1; Very toxic to aquatic life.

Chronic aquatic toxicity : Chronic aquatic toxicity Category 1; Very toxic to aquatic life with long lasting effects.

Components:

UNDECYL ALCOHOL + 5 EO POLYETHOXYLATE:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 6.4 mg/l
Exposure time: 96 hToxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 3.6 mg/l
Exposure time: 48 h
Test Type: static test

1-OCTYL-2-PYRROLIDONE:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 12.8 - 44.8 mg/l
Exposure time: 96 h
Test Type: static test
Method: Directive 67/548/EEC, Annex V, C.1.LC50 (Oncorhynchus mykiss (rainbow trout)): 17.8 mg/l
Exposure time: 96 h
Test Type: flow-through testToxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 7.59 mg/l
Exposure time: 48 h
Test Type: flow-through testToxicity to algae : ErC50 (Desmodesmus subspicatus (green algae)): 19 mg/l
End point: Growth inhibition
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201NOEC (Desmodesmus subspicatus (green algae)): 3.7 mg/l
End point: Growth inhibition
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

Toxicity to fish (Chronic) : NOEC (Danio rerio (zebra fish)): 0.91 mg/l



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toxicity)

Exposure time: 35 d
 Test Type: flow-through test
 Method: OECD Test Guideline 215

Toxicity to daphnia and other
 aquatic invertebrates
 (Chronic toxicity)

: NOEC (Daphnia magna (Water flea)): 2.5 mg/l
 Exposure time: 21 d
 Test Type: semi-static test
 Method: OECD Test Guideline 211

Toxicity to bacteria

: EC10 (Pseudomonas putida): 170 mg/l
 Exposure time: 30 min
 Test Type: Static

EC50 (Pseudomonas putida): 460 mg/l
 Exposure time: 30 min
 Test Type: Static

Toxicity to soil dwelling
 organisms

: LC50 (Eisenia fetida (earthworms)): 248 mg/kg
 Exposure time: 14 d
 Method: OECD Test Guideline 207

Plant toxicity

: EC50 (Brassica napus): 164 mg/l
 Exposure time: 14 d
 Method: OECD Test Guideline 208

NOEC (Brassica napus): 62.5 mg/l
 Exposure time: 14 d
 Method: OECD Test Guideline 208

Toxicity to terrestrial
 organisms

: LC50 (Colinus virginianus (Bobwhite quail)): > 5,620 ppm
 Exposure time: 5 d

1-UNDECANOL:

Toxicity to fish

: LC50 (Pimephales promelas (fathead minnow)): 1.04 mg/l
 Exposure time: 96 h
 Test Type: flow-through test
 Method: OECD Test Guideline 203

Toxicity to daphnia and other
 aquatic invertebrates

: LC50 (Harpacticoid copepod (Nitocra spinipes)): 0.8 mg/l
 Exposure time: 96 h
 Test Type: static test

Toxicity to algae

: EC50 (algae): 0.1 - 1 mg/l
 Exposure time: 72 h
 Remarks: Information given is based on data obtained from
 similar substances.

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SODIUM LAURYL SULFATE:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 29 mg/l
Exposure time: 96 h
Test Type: flow-through test
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Ceriodaphnia dubia (water flea)): 5.55 mg/l
Exposure time: 48 h

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): > 120 mg/l
End point: Growth inhibition
Exposure time: 72 h

Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): > 1.357 mg/l
Exposure time: 42 d
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.88 mg/l
Exposure time: 7 d
Test Type: flow-through test

Persistence and degradability

Product:

Biodegradability : Remarks: Readily biodegradable

Components:

UNDECYL ALCOHOL + 5 EO POLYETHOXYLATE:

Biodegradability : Remarks: Readily biodegradable, according to appropriate OECD test.

1-OCTYL-2-PYRROLIDONE:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 81 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

1-UNDECANOL:

Biodegradability : aerobic
Result: Readily biodegradable.
Biodegradation: 79 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

SODIUM LAURYL SULFATE:

Biodegradability : Inoculum: activated sludge
Result: Readily biodegradable.
Biodegradation: 95 %

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Exposure time: 28 d
Method: OECD Test Guideline 301B

No data available

Bioaccumulative potential

Components:

UNDECYL ALCOHOL + 5 EO POLYETHOXYLATE:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

1-OCTYL-2-PYRROLIDONE:

Bioaccumulation : Bioconcentration factor (BCF): 32.92
Remarks: The value is given based on a SAR/AAR approach
using OECD Toolbox, DEREK, VEGA QSAR models (Chesar
models), etc.

Partition coefficient: n-
octanol/water

: log Pow: 4.15 (20 °C)
pH: 7
Method: Regulation (EC) No. 440/2008, Annex, A.8

1-UNDECANOL:

Partition coefficient: n-
octanol/water

: log Pow: 4.9 (25 °C)
pH: 6
Method: OECD Test Guideline 117

SODIUM LAURYL SULFATE:

Partition coefficient: n-
octanol/water

: log Pow: 1.60

No data available

Mobility in soil

Components:

1-OCTYL-2-PYRROLIDONE:

Distribution among
environmental compartments : Koc: 303

No data available

Other adverse effects

Product:

Additional ecological
information

: An environmental hazard cannot be excluded in the event of
unprofessional handling or disposal., Very toxic to aquatic life
with long lasting effects.

Components:

1-OCTYL-2-PYRROLIDONE:

Results of PBT and vPvB
assessment

: This substance is not considered to be very persistent and
very bioaccumulating (vPvB). This substance is not
considered to be persistent, bioaccumulating and toxic (PBT).

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1-UNDECANOL:

Results of PBT and vPvB
 assessment

: This substance is not considered to be very persistent and very bioaccumulating (vPvB). This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

General advice

: The product should not be allowed to enter drains, water courses or the soil.
 Do not contaminate ponds, waterways or ditches with chemical or used container.
 Send to a licensed waste management company.

Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging

: Empty remaining contents.
 Dispose of as unused product.
 Empty containers should be taken to an approved waste handling site for recycling or disposal.
 Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION**International transport regulations****REGULATION**

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
-----------	----------------------	---------------	--------------------	---------------	------------------------------

MX_DG

UN	1760	CORROSIVE LIQUID, N.O.S. (1-OCTYL-2-PYRROLIDONE)	8	III	
----	------	--	---	-----	--

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

UN	1760	Corrosive liquid, n.o.s. (1-OCTYL-2-PYRROLIDONE)	8	III	
----	------	--	---	-----	--

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

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UN	1760	Corrosive liquid, n.o.s. (1-OCTYL-2-PYRROLIDONE)	8	III
----	------	--	---	-----

INTERNATIONAL MARITIME DANGEROUS GOODS

UN	1760	CORROSIVE LIQUID, N.O.S. (1-OCTYL-2-PYRROLIDONE)	8	III	MARINE POLLUTANT:(UNDECYL ALCOHOL + 5 EO POLYETHOXY LATE, 1- UNDECANOL)
----	------	--	---	-----	--

TDG_INWT_C

UN	1760	CORROSIVE LIQUID, N.O.S. (1-OCTYL-2-PYRROLIDONE)	8	III
----	------	--	---	-----

TDG_RAIL_C

UN	1760	CORROSIVE LIQUID, N.O.S. (1-OCTYL-2-PYRROLIDONE)	8	III
----	------	--	---	-----

TDG_ROAD_C

UN	1760	CORROSIVE LIQUID, N.O.S. (1-OCTYL-2-PYRROLIDONE)	8	III
----	------	--	---	-----

U.S. DOT - INLAND WATERWAYS

UN	1760	Corrosive liquids, n.o.s. (1-OCTYL-2-PYRROLIDONE)	8	III
----	------	---	---	-----

CFR_RAIL_C

UN	1760	Corrosive liquids, n.o.s. (1-OCTYL-2-PYRROLIDONE)	8	III
----	------	---	---	-----

U.S. DOT - ROAD

UN	1760	Corrosive liquids, n.o.s. (1-OCTYL-2-PYRROLIDONE)	8	III
----	------	---	---	-----

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

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Marine pollutant

yes

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION**EPCRA - Emergency Planning and Community Right-to-Know Act
CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Acute Health Hazard**SARA 313**

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.

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

US State Regulations**Pennsylvania Right To Know**

UNDECYL ALCOHOL + 5 EO 34398-01-1
POLYETHOXYLATE

1-OCTYL-2-PYRROLIDONE 2687-94-7

1-UNDECANOL 112-42-5

WATER 7732-18-5

New Jersey Right To Know

UNDECYL ALCOHOL + 5 EO 34398-01-1
POLYETHOXYLATE

1-OCTYL-2-PYRROLIDONE 2687-94-7

1-UNDECANOL 112-42-5

WATER 7732-18-5



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SODIUM LAURYL SULFATE

151-21-3

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

DSL : All components of this product are on the Canadian DSL

AICS : On the inventory, or in compliance with the inventory

ENCS : On the inventory, or in compliance with the inventory

KECI : On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

TSCA : On TSCA Inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

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NFPA:

HMIS III:



SAFETY DATA SHEET

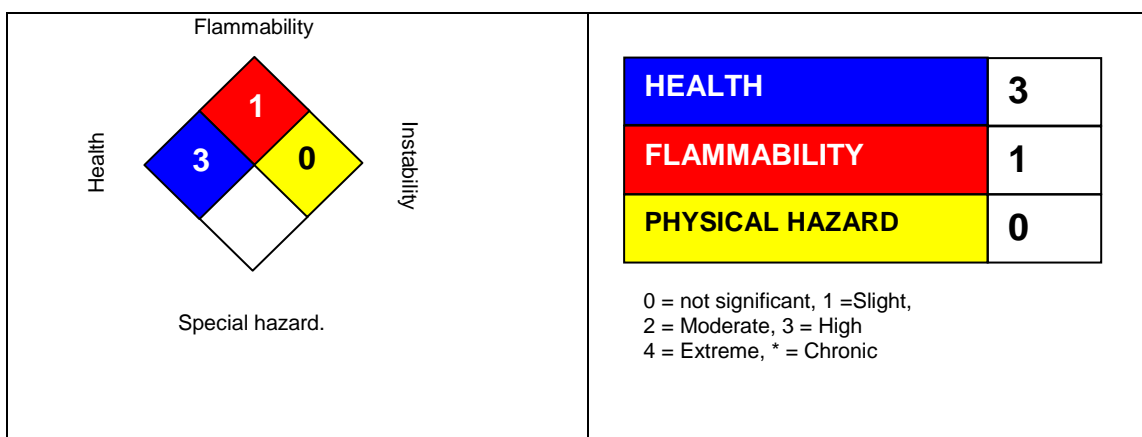
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NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB

Full text of H-Statements

H228	Flammable solid.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.

Sources of key data used to compile the Safety Data Sheet

Ashland internal data including own and sponsored test reports

The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response,

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Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative