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| SAFETY DATA SHEET | | Revision Date: 02/22/2018 |
| | | Print Date: 11/30/2020 |
| | | SDS Number: R0718683 |
| Aquaflex™ FX-64 RE polymer ™ Trademark, Ashland or its subsidiaries, registered in various countries 826236 | | Version: 1.2 |

29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Trade name : Aquaflex™ FX-64 RE polymer
 ™ Trademark, Ashland or its subsidiaries, registered in various countries

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

Recommended use : Personal care

| | |
|--|--|
| Details of the supplier of the safety data sheet Ashland P.O. Box 2219 Columbus, OH 43216 United States of America (USA) +1-614-790-3333 EHSProductSafety@ashland.com | Emergency telephone number 1-800-ASHLAND (1-800-274-5263) Regulatory Information Number 1-800-325-3751 Product Information +1-614-790-3333 |
|--|--|

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 4

GHS label elements

Signal Word : Warning

Hazard Statements : Combustible liquid.

Precautionary Statements : **Prevention:**
 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 Wear protective gloves/ eye protection/ face protection.
Response:
 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
Storage:

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Store in a well-ventilated place. Keep cool.

Disposal:

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

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Defatter

Hazardous components

| Chemical name | CAS-No. | Classification | Concentration (%) |
|---------------|---------|--|-------------------|
| ETHANOL | 64-17-5 | Flam. Liq. 2; H225 Eye Irrit. 2A; H319 STOT SE 3; H336 | 16.00 |

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : If breathed in, move person into fresh air.
If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : If on skin, rinse well with water.
First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
If on clothes, remove clothes.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
- If swallowed : Do not give milk or alcoholic beverages.



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Never give anything by mouth to an unconscious person.
 If symptoms persist, call a physician.

Most important symptoms
 and effects, both acute and
 delayed

: Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material.
 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)
 Cough
 confusion
 irregular heartbeat
 respiratory failure

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 dioxide and carbon monoxide
 formaldehyde-like
 Hydrocarbons

Specific extinguishing

:

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methods

Product is compatible with standard fire-fighting agents.

Further information : Use a water spray to cool fully closed containers.

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 : Remove all sources of ignition.
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions : Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Keep in suitable, closed containers for disposal.

Other information : Comply with all applicable federal, state, and local regulations.
Suppress (knock down) gases/vapours/mists with a water spray jet.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Avoid formation of aerosol.
Provide sufficient air exchange and/or exhaust in work rooms.
Do not breathe vapours/dust.
Do not smoke.
Container hazardous when empty.
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.
Observe label precautions.

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No smoking.
 Electrical installations / working materials must comply with
 the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Components with workplace control parameters

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|------------|---------|----------------------------------|---|-----------|
| ETHANOL | 64-17-5 | STEL | 1,000 ppm | ACGIH |
| | | TWA | 1,000 ppm 1,900 mg/m3 | NIOSH REL |
| | | TWA | 1,000 ppm 1,900 mg/m3 | OSHA Z-1 |
| | | TWA | 1,000 ppm 1,900 mg/m3 | OSHA P0 |
| | | PEL | 1,000 ppm 1,900 mg/m3 | CAL PEL |

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 : Safety glasses

Skin and body protection : Wear as appropriate:
 Impervious clothing
 Safety shoes
 Choose body protection according to the amount and concentration of the dangerous substance at the work place.
 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.
 When using do not smoke.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|------------------------------------|
| Physical state | : liquid |
| Colour | : amber |
| Odour | : No data available |
| Odour Threshold | : No data available |
| pH | : 5.5 - 7.5 Concentration: 40 % |
| Melting point/freezing point | : No data available |
| Boiling point/boiling range | : No data available |
| Flash point | : 82.2 °C |
| 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 | : No data available |
| Relative vapour density | : No data available |
| Relative density | : No data available |
| Density | : 1 g/cm ³ (25 °C) |
| Solubility(ies) | |
| Water solubility | : No data available |
| Solubility in other solvents | : No data available |
| Partition coefficient: n-octanol/water | : No data available |
| Thermal decomposition | : No data available |

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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 : Vapours may form explosive mixture with air.
Conditions to avoid : Heat, flames and sparks.
excessive heat
Incompatible materials : Acids
Alkali metals
Ammonia
Bases
halogens
inorganic materials
Oxidizing agents
sodium
Hazardous decomposition products : carbon dioxide and carbon monoxide
formaldehyde-like
Hydrocarbons

SECTION 11. TOXICOLOGICAL INFORMATION

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

Acute toxicity

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Not classified based on available information.

Components:**ETHANOL:**

Acute oral toxicity : LD50 (Rat): 7,060 mg/kg

Acute inhalation toxicity : LC50 (Rat): 117 - 125 mg/l
Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LDLo (Rabbit): 20 g/kg

Skin corrosion/irritation

Not classified based on available information.

Product:

Result: Repeated exposure may cause skin dryness or cracking.

Remarks: May cause skin irritation in susceptible persons.

Components:**ETHANOL:**

Result: Slight, transient irritation

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin., Causes serious eye irritation.

Components:**ETHANOL:**

Result: Irritating to eyes.

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

Components:**ETHANOL:**

Assessment: May cause drowsiness or dizziness.

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STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Further information**Product:**

Remarks: No data available

Carcinogenicity:**IARC**

Group 1: Carcinogenic to humans

ETHANOL

64-17-5

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 by NTP.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Product:**

Ecotoxicology Assessment

Acute aquatic toxicity : Not classified based on available information.

Chronic aquatic toxicity : Not classified based on available information.

Components:**ETHANOL:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 12,000 - 16,000 mg/l
Exposure time: 96 h
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l
Exposure time: 48 h
Test Type: static test

Persistence and degradability**Components:**

No data available

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Bioaccumulative potential**Components:**

ETHANOL:

Partition coefficient: n- : log Pow: -0.31
octanol/water

No data available

Mobility in soil**Components:**

No data available

Other adverse effects

No data available

Product:

Additional ecological : No data available
information

Components:

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

General advice : Do not dispose of waste into sewer.
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.
Do not burn, or use a cutting torch on, the empty drum.

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

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

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U.S. DOT - ROAD

Not dangerous goods

CFR_RAIL_C

Not dangerous goods

U.S. DOT - INLAND WATERWAYS

Not dangerous goods

TDG_ROAD_C

Not dangerous goods

TDG_RAIL_C

Not dangerous goods

TDG_INWT_C

Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

MX_DG

Not dangerous goods

***ORM = ORM-D, CBL = COMBUSTIBLE LIQUID**

Marine pollutant

no



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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 : Flammable (gases, aerosols, liquids, or solids)

SARA 302 : This material does not contain any components with a section 302 EHS TPO.

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.

Pennsylvania Right To Know WATER

7732-18-5

2,5-Furandione, polymer with 2-methyl-1-propene, reaction products with ethanolamine and ethylamine

283148-39-0

ETHANOL

64-17-5

New Jersey Right To Know WATER

7732-18-5

2,5-Furandione, polymer with 2-methyl-1-propene, reaction products with ethanolamine and ethylamine

283148-39-0

ETHANOL

64-17-5

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:
 TSCA : Personal care

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| | |
|-------|--|
| DSL | : All components of this product are on the Canadian DSL |
| AICS | : On the inventory, or in compliance with the inventory |
| ENCS | : Not in compliance with the inventory |
| KECI | : Not in compliance with the inventory |
| PICCS | : Not in compliance with the inventory |
| IECSC | : Not in compliance with the inventory |

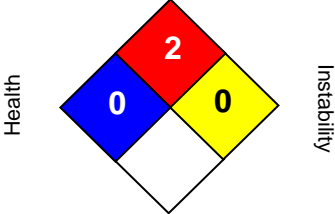
Inventories

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: | | | | | | |
|---|--|---------------|----------|---------------------|----------|------------------------|----------|
| <p>Flammability</p>  <p>Health</p> <p>Instability</p> <p>Special hazard.</p> | <table border="1"> <tr> <td>HEALTH</td><td>0</td></tr> <tr> <td>FLAMMABILITY</td><td>2</td></tr> <tr> <td>PHYSICAL HAZARD</td><td>0</td></tr> </table> <p>0 = not significant, 1 = Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic</p> | HEALTH | 0 | FLAMMABILITY | 2 | PHYSICAL HAZARD | 0 |
| HEALTH | 0 | | | | | | |
| FLAMMABILITY | 2 | | | | | | |
| PHYSICAL HAZARD | 0 | | | | | | |

NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIA

Full text of H-Statements

| | |
|------|------------------------------------|
| H225 | Highly flammable liquid and vapor. |
| H319 | Causes serious eye irritation. |
| H336 | May cause drowsiness or dizziness. |

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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, 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-

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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