



2032 Aluminum Brightener

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Issue date: 09/01/2020

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Version: 2.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : 2032 Aluminum Brightener
Product code : 2032

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

Use of the substance/mixture : For use in removing brake dust and road contaminants from surface of wheel.

1.3. Details of the supplier of the safety data sheet

Manufacturer

Distinctive Details Inc.
1253 Lower Elkton Rd.
Columbiana, OH 44408
www.DistinctiveDetailsInc.com Phone: 1-800-711-7021

1.4. Emergency telephone number

Emergency number : 1-800-424-9300 (Chemtrec 24 Hr. Emergency Line)

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

GHS classification

Met. Corr. 1
Acute Tox. 3 (Oral)
Acute Tox. 2 (Dermal)
Acute Tox. 4 (Inhalation:vapour)
Skin Corr. 1A
Eye Dam. 1
STOT RE 1
HHNOC 1

2.2. Label elements

GHS labelling

Hazard pictograms (GHS)



Signal word (GHS)

: Danger

Hazard statements (GHS)

: May be corrosive to metals. Toxic if swallowed. Fatal in contact with skin. Harmful if inhaled. Causes severe skin burns and eye damage. Causes damage to organs through prolonged or repeated exposure. Causes severe damage to the respiratory tract.

Precautionary statements (GHS)

: Keep only in original container. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands, forearms and face thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. If swallowed: rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. 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 or doctor. Absorb spillage to prevent material damage. Store locked up. Store in corrosive resistant container with a resistant inner liner. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity

1.31% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)

5.6% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Vapours))

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Hydrofluoric acid	(CAS-No.) 7664-39-3	5 – 10
Phosphoric acid	(CAS-No.) 7664-38-2	1 – 5

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general : 0.13% Benzalkonium Chloride solution: available as Zephiran Chloride 1/750mL strength in pharmacies.
- First-aid measures after inhalation : If inhaled: Remove person to fresh air and keep comfortable for breathing. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Immediately call a POISON CENTER/doctor.
- First-aid measures after skin contact : If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER/doctor. Soak affected areas in the solution. If immersion is not practical, towels should be soaked with the solution and applied to the affected areas. Towels should be changed every 2 to 3 minutes. Soaks or compresses should be continued until the pain is relieved or more definitive medical treatment is provided. 2.5% Calcium Gluconate Gel: Can be purchased online in powder (to be diluted) or pre-mixed gel form. Start massaging gel into affected areas. Apply gel every 15 minutes and massage continuously until pain is relieved or more definitive medical treatment is provided.
- First-aid measures after eye contact : 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.
- First-aid measures after ingestion : IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Immediately call a POISON CENTER/doctor.

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

- Symptoms/effects after inhalation : Harmful if inhaled. Causes severe damage to the respiratory tract.
- Symptoms/effects after skin contact : Fatal in contact with skin. Symptoms may include redness, pain, blisters. HYDROFLUORIC ACID EXPOSURE ON SKIN CAN BE FATAL AND WILL CONTINUE TO DO INTERNAL DAMAGE HOURS AFTER THE INITIAL EXPOSURE. SYMPTOMS FROM EXPOSURE TO DILUTED SOLUTIONS OF HYDROFLUORIC ACID MAY TAKE UP TO 24 HOURS TO APPEAR, SEEK IMMEDIATE MEDICAL TREATMENT AND MEDICAL ATTENTION IN ALL CASES.
- Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.
- Symptoms/effects after ingestion : Toxic if swallowed. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.
- Chronic symptoms : Causes damage to organs through prolonged or repeated exposure.

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

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : Do not use water jet.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon. May release harmful fumes.

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5.3. Advice for firefighters

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak if safe to do so. Contain spill, then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Absorb spillage to prevent material damage. Provide ventilation.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : May be corrosive to metals.

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Do not breathe dust, fume, gas, mist, spray, vapours. Do not get in eyes, on skin, or on clothing. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Use only outdoors or in a well-ventilated area.

Hygiene measures : Take off immediately all contaminated clothing and wash it before reuse. Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of the reach of children. Keep container tightly closed. Store in a well-ventilated place. Keep only in original container. Keep away from heat and direct sunlight. Keep cool. Keep dry.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available	
Hydrofluoric acid (7664-39-3)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	0.5 ppm
ACGIH OEL C [ppm]	2 ppm
ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route
ACGIH OEL TWA [ppm]	0.5 ppm
ACGIH OEL C [ppm]	2 ppm
ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route
USA - ACGIH - Biological Exposure Indices	
BEI	3 mg/g creatinine Parameter: Fluoride - Medium: urine - Sampling time: prior to shift (background, nonspecific) 10 mg/g creatinine Parameter: Fluoride - Medium: urine - Sampling time: end of shift (background, nonspecific)
BEI	3 mg/g creatinine Parameter: Fluoride - Medium: urine - Sampling time: prior to shift (background, nonspecific) 10 mg/g creatinine Parameter: Fluoride - Medium: urine - Sampling time: end of shift (background, nonspecific)

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USA - OSHA - Occupational Exposure Limits	
OSHA PEL TWA [2]	3 ppm
OSHA PEL TWA [2]	3 ppm
USA - IDLH - Occupational Exposure Limits	
IDLH [ppm]	30 ppm
IDLH [ppm]	30 ppm
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL TWA	2.5 mg/m ³
NIOSH REL TWA [ppm]	3 ppm
NIOSH REL C	5 mg/m ³
NIOSH REL C [ppm]	6 ppm
US-NIOSH chemical category	SK: SYS(FATAL)-DIR(COR) Apr 2011
NIOSH REL TWA	2.5 mg/m ³
NIOSH REL TWA [ppm]	3 ppm
NIOSH REL C	5 mg/m ³
NIOSH REL C [ppm]	6 ppm
US-NIOSH chemical category	SK: SYS(FATAL)-DIR(COR) Apr 2011
Phosphoric acid (7664-38-2)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	1 mg/m ³
ACGIH OEL STEL	3 mg/m ³
ACGIH OEL TWA	1 mg/m ³
ACGIH OEL STEL	3 mg/m ³
USA - OSHA - Occupational Exposure Limits	
OSHA PEL TWA [1]	1 mg/m ³
OSHA PEL TWA [1]	1 mg/m ³
USA - IDLH - Occupational Exposure Limits	
IDLH	1000 mg/m ³
IDLH	1000 mg/m ³
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL TWA	1 mg/m ³
NIOSH REL STEL	3 mg/m ³
NIOSH REL TWA	1 mg/m ³
NIOSH REL STEL	3 mg/m ³

8.2. Exposure controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Hand protection	: Wear suitable gloves resistant to chemical penetration.
Eye protection	: Wear eye/face protection.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Environmental exposure controls	: Avoid release to the environment.
Other information	: Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Thin clear red liquid.
Colour	: Red
Odour	: No data available
Odour threshold	: No data available
pH	: < 1

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Melting point	: No data available
Freezing point	: No data available
Boiling point	: 220 °F (104.4 °C)
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	:
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use. May be corrosive to metals.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Incompatible materials.

10.5. Incompatible materials

Strong oxidizers. Strong bases. Metals.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. May release harmful fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Toxic if swallowed.
Acute toxicity (dermal)	: Fatal in contact with skin.
Acute toxicity (inhalation)	: Harmful if inhaled.

ATE CA (oral)	63.809 mg/kg bodyweight
ATE CA (Dermal)	63.863 mg/kg bodyweight
ATE CA (vapours)	10.101 mg/l/4h
Unknown acute toxicity (GHS CA)	1.31% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 5.6% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Vapours))

Hydrofluoric acid (7664-39-3)	
LC50 inhalation rat	0.79 mg/l (Exposure time: 1 h)
ATE CA (oral)	5 mg/kg bodyweight
ATE CA (Dermal)	5 mg/kg bodyweight
ATE CA (Gases (except aerosol dispensers and lighters))	100 ppmw/4h
ATE CA (vapours)	0.79 mg/l/4h

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Hydrofluoric acid (7664-39-3)	
ATE CA (dust,mist)	0.79 mg/l/4h
Phosphoric acid (7664-38-2)	
LD50 oral rat	1530 mg/kg
LD50 oral	2000 mg/kg
LD50 dermal rabbit	2740 mg/kg
ATE CA (oral)	1530 mg/kg bodyweight
ATE CA (Dermal)	2740 mg/kg bodyweight

Skin corrosion/irritation	: Causes severe skin burns. pH: < 1
Serious eye damage/irritation	: Causes serious eye damage. pH: < 1
Respiratory or skin sensitisation	: Not classified.
Germ cell mutagenicity	: Not classified.
Carcinogenicity	: Not classified.
Reproductive toxicity	: Not classified.
STOT-single exposure	: Not classified.
STOT-repeated exposure	: Causes damage to organs through prolonged or repeated exposure.

Hydrofluoric acid (7664-39-3)	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.

Phosphoric acid (7664-38-2)	
NOAEL (oral, rat, 90 days)	250 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

Aspiration hazard	: Not classified.
Symptoms/effects after inhalation	: Harmful if inhaled. Causes severe damage to the respiratory tract.
Symptoms/effects after skin contact	: Fatal in contact with skin. Symptoms may include redness, pain, blisters.
Symptoms/effects after eye contact	: Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.
Symptoms/effects after ingestion	: Toxic if swallowed. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.
Chronic symptoms	: Causes damage to organs through prolonged or repeated exposure.
Potential adverse human health effects and symptoms	: Fatal in contact with skin.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: May cause long-term adverse effects in the aquatic environment.
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Hydrofluoric acid (7664-39-3)	
LC50 - Fish [1]	51 mg/l Test organisms (species): other:summary of finidngs in various species
EC50 - Crustacea [1]	270 mg/l (Exposure time: 48 h - Species: Daphnia species)
LC50 - Fish [2]	165 mg/l Test organisms (species): other:summary of finidngs in various species
NOEC (chronic)	14.1 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	4 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '21 d'

Phosphoric acid (7664-38-2)	
LC50 - Fish [1]	75.1 mg/l
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): Daphnia magna

12.2. Persistence and degradability

2032 Aluminum Brightener	
Persistence and degradability	Not established.

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12.3. Bioaccumulative potential

2032 Aluminum Brightener	
Bioaccumulative potential	Not established.
Hydrofluoric acid (7664-39-3)	
BCF - Fish [1]	(no bioaccumulation)
Partition coefficient n-octanol/water	-1.4

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : No other effects known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Ecology - waste materials : Hazardous waste due to toxicity.

SECTION 14: Transport information

Department of Transportation (DOT) and Transportation of Dangerous Goods (TDG)

In accordance with DOT/TDG

UN-No.(DOT/TDG) : UN2922

Proper Shipping Name (DOT/TDG) : Corrosive liquids, toxic, n.o.s. (hydrofluoric acid, phosphoric acid)

Class (DOT/TDG) : Class 8 - Corrosive material 49 CFR 173.136

Packing group (DOT/TDG) : II

Subsidiary risk (DOT/TDG) : 6.1 - Class 6.1 - Poisonous materials 49 CFR 173.132

Hazard labels (DOT/TDG) :



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.

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Hydrofluoric acid	CAS-No. 7664-39-3	5 – 10 %
Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched	CAS-No. 127087-87-0	0.1 – 1 %
D&C Red No. 19	CAS-No. 81-88-9	0.1 - 1%

Hydrofluoric acid (7664-39-3)

Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ	100 lb
Section 302 EPCRA Reportable Quantity (RQ)	100 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	100 lb

Phosphoric acid (7664-38-2)

CERCLA RQ	5000 lb
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Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched (127087-87-0)

EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
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Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- (25322-68-3)	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).

Poly(oxy-1,2-ethanediyl), .alpha.-(dinonylphenyl)-.omega.-hydroxy- (9014-93-1)	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.

15.2. International regulations

No additional information available

15.3. US State regulations

No additional information available

Component	State or local regulations
Hydrofluoric acid(7664-39-3)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List; U.S. - Pennsylvania - RTK (Right to Know) List
Phosphoric acid(7664-38-2)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List; U.S. - Pennsylvania - RTK (Right to Know) List
D&C Red No. 19 (81-88-9)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

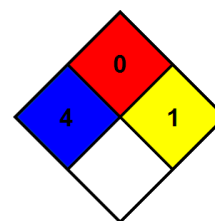
Revision date : 04/21/2021

Other information : None.

NFPA health hazard : 4 - Materials that, under emergency conditions, can be lethal.

NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity : 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.



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