SAFETY DATA SHEET

Chemtronics

Electro-Wash PX

Section 1. Identification

GHS product identifier : Electro-Wash PX

Product code : ES810, ES1210, ES1210A

Other means of identification : Processing aid Cleaner. Degreasers
ES810, ES1210, ES1210A
ES1210 (NSN 6850-01-393-9054)
Industrial/Professional use

Product type : Aerosol.

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

Identified uses
Processing aid Cleaner. Degreasers Product Application and Material uses Reference Website:

Uses advised against	Reason
Other	Industrial/Professional use

Supplier's details : Manufacturer
Chemtronics
8125 Cobb Center Drive
Kennesaw, GA 30152
Tel. 770-424-4888 or toll free 800-645-5244

Emergency telephone number (with hours of operation) : Chemtrec - 1-800-424-9300 or collect 703-527-3887
24/7

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : AEROSOLS - Category 1
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : Extremely flammable aerosol. Pressurized container: may burst if heated.
Causes skin irritation.
Causes serious eye irritation.

Precautionary statements

Prevention : Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Wash thoroughly after handling. Do not pierce or burn, even after use.

Response : IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Section 2. Hazards identification

Storage : Protect from sunlight. Do not expose to temperatures exceeding 122 °F/50 °C.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : None known.

Hazards identified when used : No known significant effects or critical hazards.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Processing aid Cleaner. Degreasers
ES810, ES1210, ES1210A
ES1210 (NSN 6850-01-393-9054)
Industrial/Professional use

Ingredient name	Synonyms	%	Identifiers
ethanol	ethyl alcohol; ALCOHOL; Ethyl alcohol (Ethanol); EtOH; Grain alcohol; Cologne spirit; undenatured ethyl alcohol, of an alcoholic strength by volume of 80 % or more and containing up to 20 % activated carbon; aqueous solution, containing by weight - 25 % or more, but not more than 35 % of a copolymer of vinyl caprolactam, vinyl pyrrolidone, N,N-dimethylaminopropyl methacrylamide and 3-(methacryloylamino) propyllauryldimethylammonium chloride, - 10 % or more, but not more than 16 % of ethanol whether or not denatured with tert-butyl alcohol and/or denatonium benzoate; Blend, consisting of ethyl alcohol, ethyl acetate and aldehydes, higher alcohols and water; blend, consisting of ethyl alcohol, ethyl acetate and water; Denatured Alcohol	≥10 - ≤30	CAS: 64-17-5
Isopropyl alcohol	isopropanol; 2-Propanol	≥3 - ≤7	CAS: 67-63-0
n-hexane	hexane; normal-Hexane; Hexyl hydride; hydrocarbons, C6, n-alkanes, iso-alkanes, cycloalkanes, with n-hexane containing at least 60% and less than 95% n-hexane; mixture of C6 aliphatic hydrocarbons (CAS RN 92112-69-1), containing by weight 60 % or more but not more than 80 % of n-hexane (CAS RN 110-54-3); Normal hexane; hexane, n-; hexane, (n)	≥1 - ≤5	CAS: 110-54-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Section 3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Section 4. First aid measures

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds
carbonyl halides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
ethanol	**NIOSH REL (United States, 10/2020)** TWA 10 hours: 1000 ppm. TWA 10 hours: 1900 mg/m³. **CAL OSHA PEL (United States, 1/2025)** TWA 8 hours: 1900 mg/m³. TWA 8 hours: 1000 ppm. **OSHA PEL (United States, 5/2018)** TWA 8 hours: 1000 ppm. TWA 8 hours: 1900 mg/m³. **OSHA PEL 1989 (United States, 3/1989)** TWA 8 hours: 1000 ppm. TWA 8 hours: 1900 mg/m³. **ACGIH TLV (United States, 1/2025)** A3. STEL 15 minutes: 1000 ppm.
Isopropyl alcohol	**ACGIH TLV (United States, 2000)** STEL 15 minutes: 400 ppm. TWA 8 hours: 200 ppm. **NIOSH REL (United States, 10/2020)** TWA 10 hours: 400 ppm. TWA 10 hours: 980 mg/m³. STEL 15 minutes: 500 ppm. STEL 15 minutes: 1225 mg/m³. **CAL OSHA PEL (United States, 1/2025)**

Section 8. Exposure controls/personal protection

	STEL 15 minutes: 1225 mg/m³. STEL 15 minutes: 500 ppm. TWA 8 hours: 980 mg/m³. TWA 8 hours: 400 ppm. **OSHA PEL (United States, 5/2018)** TWA 8 hours: 400 ppm. TWA 8 hours: 980 mg/m³. **OSHA PEL 1989 (United States, 3/1989)** TWA 8 hours: 400 ppm. TWA 8 hours: 980 mg/m³. STEL 15 minutes: 500 ppm. STEL 15 minutes: 1225 mg/m³.
n-hexane	**NIOSH REL (United States, 10/2020)** TWA 10 hours: 50 ppm. TWA 10 hours: 180 mg/m³. **CAL OSHA PEL (United States, 1/2025)** Absorbed through skin. TWA 8 hours: 180 mg/m³. TWA 8 hours: 50 ppm. **OSHA PEL (United States, 5/2018)** TWA 8 hours: 500 ppm. TWA 8 hours: 1800 mg/m³. **OSHA PEL 1989 (United States, 3/1989)** TWA 8 hours: 50 ppm. TWA 8 hours: 180 mg/m³. **ACGIH TLV (United States, 1/2025)** Absorbed through skin. TWA 8 hours: 50 ppm.

Biological exposure indices

Ingredient name	Exposure indices
Isopropyl alcohol	**ACGIH BEI (United States, 1/2025)** BEI: 40 mg/l, acetone [in urine]. Sampling time: end of shift at end of workweek.
n-hexane	**ACGIH BEI (United States, 1/2025)** BEI: 0.5 mg/l, 2,5-hexanedion [in urine]. Sampling time: end of shift.

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Section 8. Exposure controls/personal protection

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Liquid. [Aerosol.]

Color : Clear. Colorless.

Odor : Hydrocarbon. Characteristic. [Slight]

Odor threshold : Not available.

pH : Not available.

Melting point/freezing point : Not available.

Boiling point or initial boiling point and boiling range : 50°C (122°F)

Flash point : Closed cup: -29°C (-20.2°F)

Evaporation rate : >1 (butyl acetate = 1)

Flammability : Extremely flammable in the presence of the following materials or conditions: open flames, sparks and static discharge.

Lower and upper explosion limit/flammability limit : Not available.

Vapor pressure : 26.4 kPa (198 mm Hg)

Relative vapor density : >1 [Air = 1]

Relative density : 0.7

Solubility in water : Not available.

Partition coefficient: n-octanol/water : Not applicable.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Heat of combustion : 19.75 kJ/g

Viscosity : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C (104°F)): Not available.

Particle characteristics

Median particle size : Not applicable.

Section 9. Physical and chemical properties

Aerosol product

Type of aerosol : Spray

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

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

Conditions to avoid : Avoid all possible sources of ignition (spark or flame).

Incompatible materials : No specific data.

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result
ethanol	**Rat - Oral - LD50** 7 g/kg Toxic effects: Behavioral - Aggression **Rat - Inhalation - LC50 Vapor** 124700 mg/m³ [4 hours]
Isopropyl alcohol	**Rabbit - Dermal - LD50** 12800 mg/kg **Rat - Oral - LD50** 5000 mg/kg Toxic effects: Behavioral - General anesthetic
n-hexane	**Rat - Oral - LD50** 15840 mg/kg **Rat - Inhalation - LC50 Gas.** 48000 ppm [4 hours]

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Product/ingredient name	Result
ethanol	**Rabbit - Skin - Mild irritant** Amount/concentration applied: 400 mg **Rabbit - Skin - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 20 mg
Isopropyl alcohol	**Rabbit - Skin - Mild irritant** Amount/concentration applied: 500 mg

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name	Result

Section 11. Toxicological information

ethanol	**Rabbit - Eyes - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg **Rabbit - Eyes - Moderate irritant** Duration of treatment/exposure: 0.066666667 minutes Amount/concentration applied: 100 mg **Rabbit - Eyes - Moderate irritant** Amount/concentration applied: 100 uL **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 500 mg **Rabbit - Eyes - Mild irritant** Duration of treatment/exposure: 1 hours Amount/concentration applied: 50 pph
Isopropyl alcohol	**Rabbit - Eyes - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 100 mg **Rabbit - Eyes - Moderate irritant** Amount/concentration applied: 10 mg **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 100 mg
n-hexane	**Rabbit - Eyes - Mild irritant** Amount/concentration applied: 10 mg

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
ethanol	None.	-	-
Isopropyl alcohol	-	3	-

Section 11. Toxicological information

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure

Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Section 11. Toxicological information

Conclusion/Summary [Product] : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Electro-Wash PX®CA	18863.6	N/A	N/A	N/A	N/A
ethanol	7000	N/A	N/A	124.7	N/A
Isopropyl alcohol	5000	12800	N/A	N/A	N/A
n-hexane	15840	N/A	48000	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result
ethanol	**Acute - LC50 - Fresh water** Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss* 42 mg/l [4 days] Effect: Mortality **Acute - EC50 - Marine water** Algae - Green algae - *Ulva pertusa* 17.921 mg/l [96 hours] Effect: Reproduction **Chronic - NOEC - Marine water** Algae - Green algae - *Ulva pertusa* 4.995 mg/l [96 hours] Effect: Reproduction **Chronic - NOEC - Fresh water** Fish - Eastern mosquitofish - *Gambusia holbrooki* - Larvae Age: 3 days 0.375 µl/l [12 weeks] Effect: Morphology **Chronic - NOEC - Fresh water** Daphnia - Water flea - *Daphnia magna* - Neonate Age: <24 hours 100 µl/l [21 days] Effect: Mortality **Acute - EC50 - Fresh water** Daphnia - Water flea - *Daphnia magna* 2 mg/l [48 hours] Effect: Intoxication
Isopropyl alcohol	**Acute - LC50 - Marine water** Crustaceans - Common shrimp, sand shrimp - *Crangon crangon* 1400 mg/l [48 hours] Effect: Mortality **Acute - LC50 - Fresh water** Fish - Harlequinfish, red rasbora - *Rasbora heteromorpha* Size: 1 to 3 cm 4200 mg/l [96 hours] Effect: Mortality

Section 12. Ecological information

n-hexane

Acute - LC50 - Fresh water
Fish - Fathead minnow - *Pimephales promelas*
Age: 31 days; Size: 20.4 mm; Weight: 0.123 g
2500 µg/l [96 hours]
Effect: Mortality

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
ethanol	-0.35	-	Low
Isopropyl alcohol	0.05	-	Low
n-hexane	4	501.187	High

Mobility in soil

Soil/Water partition coefficient : Not available.

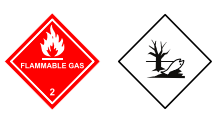
Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN number	UN1950	UN1950	UN1950	UN1950	ID8000
UN proper shipping name	Aerosols, flammable	Aerosols, flammable	Aerosols, flammable	AEROSOLS Limited quantity	Consumer commodity ID8000
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 	9 
Packing group	-	-	-	-	-

Section 14. Transport information

Environmental hazards	Yes.	No.	No.	No.	No.

Additional information

DOT Classification : This product is not regulated as a marine pollutant when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes, provided the packagings meet the general provisions of §§ 173.24 and 173.24a.

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).

IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.
Quantity limitation Passenger and Cargo Aircraft: 75 kg. Packaging instructions: Y963. Cargo Aircraft Only: 150 kg. Packaging instructions: Y963. Limited Quantities - Passenger Aircraft: 30 kg. Packaging instructions: Y963.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Clean Air Act (CAA) 112 regulated flammable substances: 1,1-difluoroethane

TSCA 12(b) - Chemical export notification

Not applicable.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : AEROSOLS - Category 1
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A

Composition/information on ingredients

Section 15. Regulatory information

Name	%	Classification
2-methylpentane	≥10 - ≤30	FLAMMABLE LIQUIDS - Category 2
1,1-difluoroethane	≥10 - ≤30	FLAMMABLE GASES - Category 1A GASES UNDER PRESSURE - Compressed gas
3-methylpentane	≥10 - ≤30	FLAMMABLE LIQUIDS - Category 2
2,2-dimethylbutane	≥10 - ≤30	FLAMMABLE LIQUIDS - Category 2
2,3-dimethylbutane	≥10 - ≤30	FLAMMABLE LIQUIDS - Category 2
ethanol	≥10 - ≤30	FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A
Isopropyl alcohol	≥3 - ≤7	FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A
Carbon dioxide, gas	≥1 - ≤5	GASES UNDER PRESSURE - Compressed gas
n-hexane	≥1 - ≤5	FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2B

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Isopropyl alcohol n-hexane	67-63-0 110-54-3	≥3 - ≤7 ≥1 - ≤5
Supplier notification	Isopropyl alcohol n-hexane	67-63-0 110-54-3	≥3 - ≤7 ≥1 - ≤5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: ISOHEXANE; DIFLUOROETHANE; 3-METHYLPENTANE; 2,2-DIMETHYLBUTANE; 2,3-DIMETHYLBUTANE; ETHYL ALCOHOL; ISOPROPYL ALCOHOL; CARBON DIOXIDE; HEXANE

New York : The following components are listed: Hexane

New Jersey : The following components are listed: 2-METHYLPENTANE; 1,1-DIFLUOROETHANE; NEOHEXANE; 2,3-DIMETHYLBUTANE; ETHYL ALCOHOL; ISOPROPYL ALCOHOL; CARBON DIOXIDE; n-HEXANE

Pennsylvania : The following components are listed: PENTANE, 2-METHYL-; PENTANE, 3-METHYL-; BUTANE, 2,2-DIMETHYL-; BUTANE, 2,3-DIMETHYL-; ETHANOL; 2-PROPANOL; CARBON DIOXIDE; HEXANE

California Prop. 65

⚠ **WARNING**: This product can expose you to n-hexane, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Ingredient name	No significant risk level	Maximum acceptable dosage level
n-hexane	-	Yes.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Ingredient name	Status
HFC-152a	Annex F, Group I

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

Section 15. Regulatory information

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

Eurasian Economic Union : **Russian Federation inventory**: All components are listed or exempted.

Japan : **Japan inventory (CSCL)**: All components are listed or exempted.
Japan inventory (ISHL): Not determined.

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

Republic of Korea : All components are listed or exempted.

Taiwan : All components are listed or exempted.

Thailand : All components are listed or exempted.

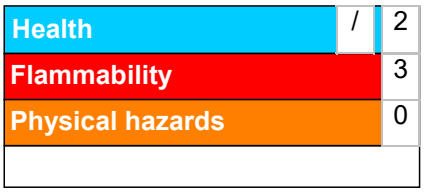
Turkey : Not determined.

United States : All components are active or exempted.

Viet Nam : All components are listed or exempted.

Section 16. Other information

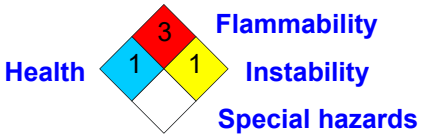
Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)



Procedure used to derive the classification

Classification	Justification
AEROSOLS - Category 1 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A	On basis of test data Calculation method Calculation method

History

Date of printing : 11/10/2025

Date of issue/Date of revision : 11/10/2025

Date of previous issue : No previous validation

Version : 1

Section 16. Other information

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
DOT = Department of Transportation
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
IMO = International Maritime Organization
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
TDG = Transportation of Dangerous Goods
UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.