Section 1-Identification of Product

Catalog #:	Product Use:	WHMIS Classification
9780, 9782, 9784, 9786, 9788	This product is intended for research purposes only.	Health: 1 Fire: 0 Stability: 1

Synonyms: RNaseZAP Wipes

Contact Information

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Emergency Contact: In Europe, call 112. In USA, call 911

Section 2-Composition/Information

Hazardous Ingredients (Specific)	%	CAS #	EC No.	Annex 1*, Index No.
Surfactant	1-20	Trade Secret	Trade Secret	Not Listed

Symbols: Xn

RTECS: WT1050000

* Annex 1 of Council Directive 67/548/EEC

Section 3-Hazard Identification

Not listed in Annex 1 of Directive 67/548/EEC and subsequent amending Directives.

Routes of Entry

Skin Contact	Mildly irritating to skin, causes dryness and a rash on continued exposure. May cause allergic skin reactions.
Skin Absorption	Mildly irritating to skin, causes dryness and a rash on continued exposure. May cause allergic skin reaction.
Eye Contact	Causes eye irritation, redness and pain.
Inhalation	Causes respiratory irritation. Symptoms may include coughing, shortness of breath. May cause allergic reaction in sensitive individuals
Ingestion	Causes gastrointestinal irritation

[Emergency Overview]

Caution! May cause eye and skin irritation. May cause respiratory and digestive tract irritation. This is expected to be a low hazard for usual industrial handling.

WHMIS Symbols

N.A.

[Potential Health Effects]

Poison by subcutaneous route. Mildly toxic by ingestion. Human systemic effects by ingestion: headache and nausea or vomiting. Experimental reproductive effects. Human mutation data reported. A skin and eye irritant. In the form of mist it is a nuisance particulate and inhalation irritant. Combustible liquid when exposed to heat, flame, or powerful oxidizers. Mixtures with hydrogen peroxide are highly explosive. Ignites on contact with potassium permanganate, calcium hypochlorite. Mixture with nitric acid + sulfuric acid forms the explosive glyceryl nitrate. Mixture with perchloric acid + lead oxide forms explosive perchlorate esters. Confined mixture with chlorine explodes if heated to 70–80º. Can react violently with acetic anhydride, aniline + nitrobenzene, Ca(OCl)2, CrO3, Cr2O3, F2 + PbO, phosphorus triiodide, ethylene oxide + heat, KMnO4, K2O2, AgClO4, Na2O2, NaH. Energetic reaction with sodium hydride. Mixture with nitric acid + hydrofluoric acid is a storage hazard due to gas evolution. To fight fire, use alcohol foam, CO2, dry chemical. When heated to decomposition it emits acrid smoke and fumes.

Section 4-First Aid Measures

Skin Contact	Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.
Eye Contact	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation develops, get medical aid.
Inhalation	Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.
Ingestion	Never give anything by mouth to an unconscious person. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Get medical aid if irritation or symptoms occur.

Section 5-Fire Fighting Measures	
Flammable	Slightly flammable
Means of Extinction	Use water spray to cool fire-exposed containers. Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.
Flashpoint (^{o}C) and Method	Not tested
Upper Flammable Limit (% by volume)	Not tested
Lower Flammable Limit (% by volume)	Not tested
Autoignition Temperature (^{o}C)	Not tested
Explosion Data – Sensitivity to Impact	Not tested
Explosion Data – Sensitivity to Static Discharge	Not tested
Hazardous Combustion Products	Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.
NFPA	Health: 1 Fire: 1 Stability: 0

Section 6-Accidental Release Measures
Leak and Spill Procedures
Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal.

Section 7-Handling and Storage	
Handling Procedures and Equipment	Wash thoroughly after handling. Wash hands before eating. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Wash clothing before reuse
Storage Requirements	Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

Section 8-Exposure Control/Personal Protection	
Exposure Limits	
ACGIH TLV	Surfactant: 10 mg/m3 TWA
OSHA PEL	Surfactant: 15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
Other (specify)	N.A.
Engineering Controls (specific)	
General	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low
Local Exhaust	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details
Other	N.A.
Personal Protective Equipment (specific)	
Gloves	Synthetic Gloves
Respirator	A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.
Eye	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Maintain eye wash fountain and quick-drench facilities in work area
Footwear	Closed toe shoes
Clothing	Wear appropriate protective clothing to prevent skin exposure.
Other	N.A.
Environmental Exposure Controls:	
	As a precaution, all necessary measures should be taken to ensure that the substance does not enter any environmental compartment.

Section 9-Physical and Chemical Properties	
Physical State	Liquid

Odor and Appearance	Odorless/Clear
Odor Threshold (ppm)	Not Available
Specific Gravity	Not Available
Vapor Density (Air=1)	Not Available
Vapor Pressure (mmHg)	Not Available
Evaporation Rate	Not Available
Boiling Point (^oC)	Not Available
Freezing Point (^oC)	Not Available
pH	Not Available
Coefficient of Water/Oil Distribution	Not Available
[Solubility in Water]	Not Available

The above properties should be determined in accordance with the specifications of Part A of Annex V to Directive 67/548/EEC or any other comparable method.

Section 10-Stability and Reactivity

Chemical Stability	Stable
Incompatible with other substances	Acetic anhydride, potassium permanganate, strong acids, caustics (e.g. ammonia, ammonium hydroxide, calcium hydroxide, potassium hydroxide, sodium hydroxide), isocyanates, oxidizing agents, aliphatic amines
Reactivity	Not Available
Hazardous Decomposition Products	Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Section 11-Toxicological Information

Acute Effects	Not Tested
Chronic Effects	Not Tested
Irritancy of Product	Eyes, skin, reparatory, gastrointestinal
Skin Sensitization	Not Tested
Respiratory Sensitization	Not Tested
LD_{50}	Oral Rat: 1288 mg/kg
LC_{50}	Inhalation Rat: >3900 mg/kg

Carcinogenicity

IARC (1,2A, or 2B)	Not Listed
ACGIH (A1, A2, or A3)	Not Listed
Reproductive Toxicity	Skin mouse pregnant; .480 mg/kg: Reproductive effects on embryo or fetus: Fetotoxicity; stunted fetus.
Teratogenicity	Not Listed
Embryotoxicity	Not Listed
Mutagenicity	Not Listed
Name of Synergistic Products/Effects	Not Listed

Section 12-Ecological Information

Ecotoxicity:	Toxic for aquatic organisms. Fish toxicity: l. macrochirus LC_{50}: 4.5 mg/L/48hr. Daphnia toxicity: Daphnia magna EC_{50}: 6 mg/l/48hr.
Environmental Mobility	No Data.
Persistence and Degradability	Biodegradation: 90%/28 days; modified OECD screening test.
Bioaccumulation Potential	No appreciable bioaccumulation potential is to be expected.
Other Environmental Data	BOD 99% from TOD/5 days

Section 13-Disposal Considerations

Waste Disposal	Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. EU Directive 75/442/EEC and Directive 91/689/EEC as amended by Directive 94/31/EC, together with any additional requirements of the pertinent Member State. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

Section 14-Transport Information

UN No.	Not Listed
UN Class	Not Listed
UN Packing Group	Not Listed

UN Proper Shipping Name	Not Listed
Marine Pollutant	WGK Class 2: Hazard to water.
RID/ADR	Not classified as hazardous for road and rail transport.
IMDG	Not classified as hazardous for transport by sea.
IATA	Not classified as hazardous for transport by air.

Section 15-Regulatory Information

Health and Environmental Information According to EU Directives 67/548/EEC as amended by 2004/739/EC	Substance not listed in Annex I of Directive 67/548/EEC and subsequent adapting directives.
Relevant UK Regulations	Control of Substances Hazardous to Health (COSHH) Regulation. 2002; (SI 2002/2677) The Chemicals Hazard Information and Packaging for Supply (CHIP) Regulations. 2002 (SI 2002/2689)
Relevant German Regulations	
WGK;	Class 2; hazard to water; VwVwS Anh 2 Index No. 664
Storage Class VCI;	4.1 B
Instruction Sheets;	M004 Irritant and Corrosive Substances. M050 Handling Hazardous Substances.
Occupational Restrictions;	Young Persons; 22 JarbSchG. Pregnant and New Mothers; 4 and 5 MuSchRiV
Restriction on Marketing, Use Import or Export in Accordance with EU Directive 76/769/EEC and EU Regulation No. 304/2004;	None
[OSHA]	Not Listed
[SARA]	Not Listed
[TSCA]	Listed
Risk Statements	21/22; Harmful in contact with skin and if swallowed 36/37/38; Irritating to eyes, respiratory system and skin.
Safety Statements	26; In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. 36/37; Wear suitable protective clothing and gloves.

Section 16-Other Information

This bulletin is for your guidance and is based upon information and tests believed to be reliable. Ambion makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages thereto. The data are offered solely for your consideration, investigation, and verification. These suggestions should not be confused with state, municipal, or insurance requirements, or with national safety codes and constitute no warranty. Any use of these data and information must be determined by the user to be in accordance with applicable federal, state, and local regulations.