

SAFETY DATA SHEET
TEVA® Resin SDS - Column

Revision Date: 27-May-15

Section 1: Chemical Product and Company Identification

Product Name TEVA® Resin
Product Number(s): TE.22-C01-A, TE.22-C50-A, TE10-C01-A, TE10-C20-A, TE5-C01-A, TE5-C20-A, TE-C01-A, TE-C20-A, TE-C50-A
Product Synonym(s): TEVA® Resin Column
Identified Uses: Laboratory chemicals, manufacture of substances
Manufacturer: Eichrom Technologies LLC
1955 University Lane
Lisle, Illinois 60532
General Information: (8-5 CST M-F)
800-422-6693 (in USA)
630-963-0320

24 Hour Emergency Number:

CHEMTREC: 800-424-9300

Section 2: Hazard(s) Identification



GHS Signal Word: **Danger**
GHS Classification of substance or mixture: Chronic hazards to the aquatic environment (Category 1)
Skin corrosion/irritation
Serious eye damage (irreversible effects)
Acute toxicity, Oral (Category 4)
Acute hazards to the aquatic environment (Category 1)
Hazard Statement(s):
H410 Very toxic to aquatic life with long lasting effects
Mixture contains of component(s) of unknown hazards to the aquatic environment
H314 Causes severe skin burns and eye damage
H318 Causes serious eye damage
H302 Harmful if swallowed
H400 Very toxic to aquatic life
mixture contains of component(s) of unknown hazards to the aquatic environment

Prevention:

P260 Do not breathe dust.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves, clothing, and eye protection.

Response:

P301/P330/P331 IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.
P303/P361/P353 IF ON SKIN (or hair): Immediately remove all contaminated clothing. Rinse skin (or hair) with water.
P304/P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P305/P351/P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 IMMEDIATELY call a POISON CONTROL CENTER or doctor.
P363 Wash contaminated clothing before reuse.
P391 Collect Spillage.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/container in accordance with federal, state, and local regulations.

Section 3: Composition / Information on Ingredients

Component	CAS_Number	Percentage Range
De-ionized water	007732-18-5	60-70%
Nonionic Acrylic Ester Polymer		18-25%
Trioctylmethylammonium chloride	63393-96-4	9-15%
Decan-1-ol	112-30-1	<1%
Octan-1-ol	111-87-5	<1%
Nitric Acid, Concentrated	7697-37-2	Approximately 0.1%

Section 4: First-aid Measures

General Advice	The hazardous properties of this material have not been established. Treat material as if it were toxic when evaluating first aid requirements.
Ingestion	Contact local poison control center
Skin Contact	Wash immediately with soap and copious amounts of water. Remove and wash contaminated clothing promptly. If irritation develops, seek medical attention.
Eye Contact	Irrigate immediately with water for 15 minutes. Mechanical irritation is possible; seek medical attention.
Inhalation	Remove to fresh air. If breathing is labored, administer oxygen. If not breathing, give artificial respiration. Seek medical attention.
Most important symptoms and effects, both acute and delayed	The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11. Further important symptoms and effects are so far not known.
Indication of any immediate medical attention and special treatment needed	Treat according to symptoms (decontamination, vital functions), no known specific antidote.

Section 5: Firefighting Measures

Extinguishing Media	Foam, CO2, Dry Chemical
Fire and Explosion Hazards	Highly toxic and irritating fumes may be released and extinguishing water runoff may be toxic. Polymer does not support flame.
Protective Equipment	Wear positive pressure self-contained breathing apparatus and full personal protective equipment.

Section 6: Accidental Release Measures

Personal precautions	Avoid breathing vapors, mist, or gas. See section 8. Surface may be slippery.
Environmental Precautions	Avoid release to the environment
Methods and materials for containment and clean-up	Collect Spillage Ventilate area and wash spill site after material pickup is complete.
Containment Cleanup	Sweep up material and transfer to a suitable container for disposal.
Reference to other sections	For disposal see section 13.

Section 7: Handling and Storage

Specific End Use(s)	Apart from the uses mentioned in section 1 no other specific uses are stipulated.
Conditions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Use mechanical exhaust if dust is formed.
Conditions for safe storage	Normal warehouse storage in cool, dry area is satisfactory. Keep away from strong oxidizers.

Section 8: Exposure Controls / Personal Protection

Control Parameters	Per AIHA WEEL, 8hr-TWA for Octan-1-ol is 50 ppm.
Exposure Controls	Do not eat, drink or smoke when using this product Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product.
Skin Protection	Wear protective gloves, clothing, and eye protection.
Respiratory protection	Do not breathe dust. Use NIOSH/MSHA approved respirator when handling material outside of mechanical exhaust. An air-purifying respirator with an organic vapor cartridge or canister may be permissible.

Section 9: Physical Properties

Information on basic physical and chemical properties

Appearance:	Powder-Liquid Mixture White bead in colorless liquid	Explosion Limits (Upper/Lower):	Not Established
Odor:	low ammonia to none	Flash Point:	Not established
Odor Threshold:	Not Established	Flammability:	Not Established
pH:	1.3 (dilute acid)	AutoIgnition Temperature:	Not Established
Melting Point:	0 to -5°C (dilute acid); Not determined for powder	Decomposition Temperature	Not Established
Boiling Point:	100 to 120°C (dilute acid); Not determined for powder	VaporPressure:	49 hPa (37 mmHg) at 50°C (122°F) for nitric acid
Relative Density:	1.001 g/mL at 25°C (powder is 0.35 g/mL)	VaporDensity:	Not Established
Solubility:	(in water) Beads are insoluble, acid is miscible with water	Evaporation Rate:	Not Established
Partition Coefficient:	Not Established		
Viscosity:	Not Established		

Section 10: Stability and Reactivity

Reactivity	No hazardous reactions if stored and handled as indicated.
Chemical Stability	Stable under normal handling and storage conditions.
Hazardous Reactions	No hazardous reactions are expected in normal laboratory use. Hazardous polymerization will not occur.
Materials to Avoid	Contact with strong oxidizers will degrade material.
Hazardous decomposition Products	No hazardous decomposition products if stored and handled as indicated. See also section 5.

Section 11: Toxicology Information

	The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.
Acute Toxicity	
Oral Effects	Ingesting acid may irritate or burn mouth, throat, and stomach. The estimated oral LD50 for TEVA® Resin Column is 1480 mg/kg (rat). The estimated oral LD50 for quaternary ammonium salt is 220 mg/kg (rat).
Inhalation Effects	Nitric Acid LC50 = 138 ppm/30 min (rat).
Eye Effects	May cause irritation or corneal injury.
Dermal Effects	May produce irritation of skin upon contact. Skin irritation for quaternary ammonium salt is listed as severe; 8.3 on a 0-10 scale (rabbit)
Skin corrosion/irritation	Repeated exposure of the skin to low concentrations of nitric acid may cause dermatitis, characterized by erythema, itching and a dry scaly appearance. Non-corrosive to skin via Corrositex® (skin) test.
Serious eye damage/irritation	
Respiratory or skin sensitization	May cause irritation or corneal injury. Long term inhalation exposure to nitric acid fumes can lead to chronic respiratory irritation such as bronchitis and may also lead to dental erosion as the nitric acid deposits on the teeth and erodes the outer coating of enamel.
Germ Cell Mutagenicity	
Carcinogenicity	Based on the ingredients, there is no suspicion of a mutagenic effect. The whole of the information assessable provides no indication of a carcinogenic effect. No specific data available. Minimize direct exposure to material
Reproductive Toxicity	

	A component of the substance caused malformations/developmental toxicity in laboratory animals.
	The results of animal studies suggest a fertility impairing effect.
Specific Target Organ Toxicity	
Single Exposure	Based on the available information there is no specific target organ toxicity to be expected after a single exposure.
Repeated Exposure	Repeated exposure may affect certain organs.
Aspiration Hazard	No data available regarding aspiration hazards associated with this product.

Section 12: Ecological Information

Aquatic Toxicity	*The product has not been tested. The statement has been derived from the properties of individual components using an additivity method.
Acute Toxicity to fish	LC50 - Oncorhynchus mykiss (rainbow trout) - 0.18 -0.32 mg/l - 96.0 h for trioctylammonium chloride TEVA® Resin - estimated LC50 > 0.3-2.6 mg/l*
Acute Toxicity to aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 0.01 -0.04 mg/l - 48 h for trioctylammonium chloride TEVA® Resin - estimated EC50 (48 h), 0.41 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)*
Acute toxicity to aquatic plants	TEVA® Resin - estimated EC10, 0.28 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)* TEVA® Resin - estimated EC50 (72h) 0.29 mg/l (growth rate), Desmodosmus subspicatus (OECD Guideline 201, static). The details of the toxic effect relate to the nominal concentration.* TEVA® Resin - estimated EC10 (72h) 0.35 mg/l (growth rate), Desmodosmus subspicatus (OECD Guideline 201, static). The details of the toxic effect relate to the nominal concentration.*
Chronic Toxicity to fish	No data available regarding chronic toxicity to fish.
Chronic Toxicity to aquatic invertebrates	No data available regarding chronic toxicity to daphnids.
Chronic toxicity to aquatic plants	No data available regarding chronic toxicity to aquatic plants.
Microorganisms/Effect on Activated Sludge	
Toxicity to Microorganisms	OECD Guideline 209 static, activated sludge, domestic/EC10 (3h): 11 mg/l* OECD Guideline 209 static, activated sludge, domestic/EC50 (3h): 46 mg/l*
Persistence and degradability	
Biodegradability	Not readily biodegradable.
Biodegradation and elimination (H2O)	The organic component of the mixture is biodegradable.
Elimination information	10% CO2 formation relative to the theoretical value (28d) (OECD 301B; ISO 9439; 92/69/EEC, C.4-C) (aerobic, activated, sludge). Derived from products with similar chemical character.
Stability in water	No data available.
Bioaccumulative Potential	Discharge into the environment should be avoided. Bioconcentration Factor for Organic components is calculated to be between 70-2,349, with an estimate of 1,778.
Mobility in Soil	No data are available for mobility in soil.
Transport between environmental compartments	No data available.
PBT/vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
Other	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

Section 13: Disposal Considerations

General	Dispose of contents/container in accordance with federal, state, and local regulations.
Unused:	Dispose of liquid according to local regulations for acids. Bury resin in licensed landfill or burn in approved incinerator equipped with an afterburner and scrubber according to local, state, and federal regulations.
Used:	For resin contaminated with hazardous materials, dispose of mixture as hazardous material according to local, state, and federal regulations.

Section 14: Transport Information

UN Number UN3077

**Land Transport
(US DOT)**

Hazard Class	9
Packing Group	III
Hazard Label	9
Proper Shipping Name	Environmentally hazardous substance, solid, n.o.s., 9, III

From 49 CFR 171.4 (c) (2) -- Single or combination packagings having a net mass of 5 kg or less for solids, are not subject to any other requirements of 49 CFR Subchapter C [Parts 171 – 177] provided the packagings meet the general requirements in §§173.24 and 173.24a [provided transportation is not by any form of watercraft capable of being used as a means of transportation on the water]

**Air Transport
(IATA)**

Hazard Class	9
Packing Group	III
Hazard Label	9
Proper Shipping Name	III, , 9

From IATA DGR 56th edition Special Provision A197 -- UN3077 substances may be shipped as “not restricted” provided that the net quantity in any receptacle does not exceed 5 kg and the packaging used meets defined standards. Hazardous substance mark is not required on single packagings and combination packagings.

**Water Transport
(IMDG)**

Hazard Class	9
Packing Group	III
Hazard Label	9
Proper Shipping Name	9, Environmentally hazardous substance, solid, n.o.s.,

From IMDG Code 2.10.2.7 -- Marine pollutants packaged in single or combination packagings having a net mass per single or inner packaging of 5 kg or less for solids are not subject to any other provisions of the 2014 IMDG 4Code relevant to marine pollutants provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

Section 15: Regulatory Information

US Federal Regulations

Toxic Substances Control Act (TSCA): This material is provided to you under the research and development (R&D) exemption.

US State Regulations

A component, Deca-1-ol [CAS 112-30-1], is listed on the following state right to know lists:
PA

A component, Octan-1-ol [CAS 111-87-5], is listed on the following state right to know lists:
MN, PA

Section 16: Other Information

Trademark: TEVA® Resin is a registered trademark of Eichrom Technologies LLC

Revision Updated to GHS SDS format, including classification

The information set forth herein has been gathered from standard reference materials and is to the best knowledge and belief of Eichrom Technologies LLC, accurate and reliable. Such information is offered solely for your consideration, investigation and verification, and does not suggest or guarantee that the hazard precautions or procedures mentioned are the only ones that exist. Eichrom Technologies LLC makes no warranties, express or implied, with respect to the use of such information or the use of the specific material identified herein in combination with any other material or process, and assumes no responsibility therefore.