SAFETY DATA SHEET

TEVA® Resin SDS - Bulk and Cartridge

Revision Date: 01-Feb-18

Section 1: Chemical Product and Company Identification

Product Name TEVA® Resin

Product Number(s): TE1ML-R01-S, TE1ML-R50-S, TE-B01-A, TE-B01-F, TE-B01-S, TE-B01-XAD, TE-B100-A, TE-B100-S, TE-B200-A, TE-B200-S, TE-B25-A, TE-B25-F, TE-B25-S, TE-B50-A, TE-B50-S, TE-R01-S, TE-R25-S, TE-R50-S

Product Synonym(s): TEVA® Resin

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 (US/Canada): 1-800-255-3924 CHEMTEL Contract #:MIS9554039

24 Hour International Access Number: 1-813-248-0585

Country Specific Emergency Numbers:

Australia: 1-300-954-583
Brazil: 0-800-591-6042
India: 000-800-100-4086
Mexico: 1-800-99-731

Section 2: Hazard(s) Identification

2.1 Classification of the substance or mixture

GHS Classification of substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4)
Skin corrosion/irritation
Respiratory Tract Irritation
Reproductive Toxicity
Specific target organ system toxicity following repeated exposure (Category 1)
Chronic hazards to the aquatic environment (Category 1)

2.2 GHS Label elements, including precautionary statements

Pictogram:

Signal Word: Danger

Hazard Statement(s):

H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H335	May cause respiratory irritation
H360	May damage fertility or the unborn child (state specific effect if known) (state route of exposure if it is conclusively proven that no other routes of exposure can cause the hazard)
H372	Causes damage to organs through prolonged or repeated exposure
H410	Very toxic to aquatic life with long lasting effects Mixture contains of component(s) of unknown hazards to the aquatic environment

Precautionary Statement(s):

Prevention	P201	Obtain special instructions before use.
	P202	Do not handle until all safety precautions have been read and understood.
	P260	Do not breathe dust or vapors.
		Do not breathe dust or mist.
	P261	Avoid breathing vapors.
		Avoid breathing dust/fume/gas/mist/vapors/spray.
		Avoid breathing dust.
		Avoid breathing dust and vapors.
	P264	Wash hands thoroughly after handling.
	P270	Do not eat, drink or smoke when using this product.

	P271	Use only outdoors or in a well-ventilated area.
	P273	Avoid release to the environment.
	P280	Wear protective gloves, clothing, and eye protection.
	P281	Use personal protective equipment as required.
Response	P301+P330+P331	IF SWALLOWED: Rinse mouth. DO NOT induce vomitting.
	P303+P361+P353	IF ON SKIN (or hair): Immediately remove all contaminated clothing. Rinse skin (or hair) with water.
	P304+P312	IF INHALED: Call a POISON CONTROL CENTER or doctor if you feel unwell.
	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.
	P308+P313	IF exposed or concerned: Get medical attention.
	P310	IMMEDIATELY call a POISON CONTROL CENTER or doctor.
	P363	Wash contaminated clothing before reuse.
	P391	Collect Spillage.
Storage	P403	Store in a well-ventilated place.
	P403+P233	Store in a well-ventilated place. Keep container tightly closed.
	P405	Store locked up.
Disposal	P501	Dispose of contents/container in accordance with federal, state, and local regulations.

2.3 Hazards Not Otherwise Classified (HNOC) or not covered by GHS:

Section 3: Composition / Information on Ingredients

Component	CAS_Number	Percentage Range
Nonionic Acrylic Ester Polymer	Trade Secret	61%
Trioctylmethylammonium chloride	63393-96-4	29-37%
Decan-1-ol	112-30-1	1-3%
Octan-1-ol	111-87-5	1-3%
Amines, tri-C8-10-alkyl	68814-95-9	< 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	Drink a large quantity of milk or water and contact local poison control center (if conscious).
	Never give anything by mouth to an unconscious person. Consult a physician.
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.
Special Hazards	Possible combustion products include carbon oxides, nitrogen oxides (Nox)

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.
	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

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.
Specific End Use(s)	Apart from the uses mentioned in section 1 no other specific uses are stipulated.

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.
Skin Protection	Wash hands thoroughly after handling.
Body protection	Wear protective gloves, clothing, and eye protection.
Respiratory protection	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.
	Do not breathe dust.

Section 9: Physical Properties

Information on basic physical and chemical properties

Appearance:	Powder Hard, off-white spherical beads	Explosion Limits (Upper/Lower):	Not Established
Odor:	Low to none	Flash Point:	132 °C, for trioctylmethylammonium chloride
Odor Threshold:	Not Established		
pH:	Not relevant	Flammability:	Not Established
Melting Point:	Not Established	AutoIgnition Temperature:	Not Established
Boiling Point:	Not Established	Decomposition Temperature	Not Established
Relative Density:	0.35 g/mL at 25°C	VaporPressure:	<1 hPa (<1 mmHg)
Solubility:	Practically insoluble in water	VaporDensity:	Not established
Partition Coefficient:	Not Established	Evaporation Rate:	Not Established
Viscosity:	Not Applicable		

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.
Conditions to Avoid	Avoid all sources of ignition; heat, sparks, open flame. Avoid electro-static discharge.

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	The estimated oral LD50 for quaternary ammonium salt is 220 mg/kg (rat).
	The estimated oral LD50 for TEVA® Resin is 477 mg/kg (rat).
Inhalation Effects	No data available for acute inhalation effects of this product.
Dermal Effects	May cause burns to the mouth, throat, and stomach.
Skin corrosion/irritation	
	Non-corrosive to skin via Corrositex® (skin) test.
Serious eye damage/irritation	
	May cause irritation or corneal injury.
Respiratory or skin sensitization	
	Based on the ingredients, there is no suspicion of a skin-sensitizing potential.
Germ Cell Mutagenicity	
	Based on the ingredients, there is no suspicion of a mutagenic effect.
Carcinogenicity	
	No specific data available. Minimize direct exposure to material.
	The whole of the information assessable provides no indication of a carcinogenic effect.
Reproductive Toxicity	
	The results of animal studies suggest a fertility impairing effect.
	A component of the substance caused malformations/developmental toxicity in laboratory animals.
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 > 0.3-2.6 mg/l*
	LC50 - Oncorhynchus mykiss (rainbow trout) - 0.18 -0.32 mg/l - 96.0 h for trioctylammonium chloride
Acute Toxicity to aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 0.01 -0.04 mg/l - 48 h for trioctylammonium chloride
	estimated EC50 (48 h), 0.41 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)*
	estimated EC10, 0.28 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)*
Acute toxicity to aquatic plants	estimated EC50 (72h) 0.29 mg/l (growth rate), Desmodesmus subspicatus (OECD Guideline 201, static). The details of the toxic effect relate to the nominal concentration.*
	estimated EC10 (72h) 0.35 mg/l (growth rate), Desmodesmus 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*
Persistance 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:	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. (Trioctylmethylammonium Chloride) , 9, III

US Department of Transportation Exceptions:

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	Environmentally hazardous substance, solid, n.o.s. (Trioctylmethylammonium Chloride) , 9, III

IATA Exceptions:

NEW PROVISION (2015)
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

Section 14: Transport Information

Packing Group	III
Hazard Label	9
Proper Shipping Name	Environmentally hazardous substance, solid, n.o.s. (Trioctylmethylammonium Chloride) , 9, III

IMDG Exceptions:

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, Octan-1-ol [CAS 111-87-5], is listed on the following state right to know lists: MN, PA
	A component, Deca-1-ol [CAS 112-30-1], is listed on the following state right to know lists: PA

Section 16: Other Information

Revision	Replaces 27-May-2015 revision
	Added Labels for Shipping Exceptions.
	1-Feb-2018: Update Emergency Phone Numbers
SDS Prepared By:	Eichrom Technologies LLC
Trademark:	TEVA® Resin is a registered trademark of Eichrom Technologies LLC