Conforms to Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals

SAFETY DATA SHEET



ZORBAX PrepHT XDB-C8 Chromatography Columns with Acetonitrile and Water 10 to 30mL

Section 1. Identification

This product is considered an article. This Safety Data Sheet is written based on the encapsulated substance or mixture in this article.

Product identifier	: ZORBAX PrepHT XDB-C8 Chromatography Columns with Acetonitrile and Water 10 to 30mL
Part no.	: 970050-906, 970100-906
Relevant identified uses of	the substance or mixture and uses advised against
Identified uses	: Analytical chemistry. HPLC column Solvent volume: 10 - 30 ml 970050-906 PrepHT, ZORBAX, XDB-C8, 21.2x50mm, 5u Cart, 10.6mL solvent 970100-906 PrepHT, ZORBAX, XDB-C8, 21.2x100mm, 5u,Crt, 21.2mL solvent
Supplier/Manufacturer	: Agilent Technologies Australia Pty Ltd 679 Springvale Road Mulgrave Victoria 3170, Australia 1800 802 402
Emergency telephone number (with hours of operation)	: CHEMTREC®: +(61)-290372994

Section 2. Hazard(s) identification

This article, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. The substance or mixture is encapsulated in the article. Only if released due to use or processing of the article in a manner not in accordance with the product's directions for use it may present potential health and safety hazards.

Classification of the substan	<u>ce or mixture</u>
H225	FLAMMABLE LIQUIDS - Category 2
H318	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
GHS label elements	
Hazard pictograms	
Signal word	: DANGER
Hazard statements	: H225 - Highly flammable liquid and vapour. H318 - Causes serious eye damage.
Precautionary statements	
Prevention	 P280 - Wear eye or face protection. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Response	 P305 + P351 + P338, P310 - 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.
Storage	: Not applicable.
Disposal	 P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Section 2. Hazard(s) identification

Supplemental label elements

Additional warning : Not applicable. phrases

Other hazards which do not : None known. result in classification

Section 3. Composition and ingredient information

This article, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. The substance or mixture is encapsulated in the article. Only if released due to use or processing of the article in a manner not in accordance with the product's directions for use it may present potential health and safety hazards.

Substance/mixture

: Mixture (encapsulated in article)

CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
Organosilane bonded silica gel	≥60 - ≤75	-
Acetonitrile	≥10 - <25	75-05-8

Contains : Organosilane bonded silica gel.

Note: To the best of our knowledge, the acute and chronic toxicological properties of bonded silica gels have not been investigated. This product contains synthetic amorphous silica, and should not be confused with crystalline silica such as guartz, cristobalite, or tridymite, or with diatomaceous earth or other naturally occurring forms of amorphous silica that frequently contain crystalline forms of silica.

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.

The total concentration of ingredients in this product, reported or not in this section, is 100%.

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

Section 4. First aid measures

Description of necessary fire	st aid measures
Eye contact	: Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician.
Inhalation	: Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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. 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	: Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

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Ingestion	: Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician. 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/	
Potential acute health effe	
Eye contact	: Causes serious eye damage.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Over-exposure signs/sym	<u>otoms</u>
Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion	: Adverse symptoms may include the following: stomach pains
Indication of immediate me	dical 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. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media	
Suitable extinguishing media	: Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	: Do not use water jet.
Specific hazards arising from the chemical	: Highly flammable liquid and vapour. 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.

Section 5. Firefighting measures

Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides metal oxide/oxides cyanides
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.
Hazchem code	: 1Z

Section 6. Accidental release measures

Personal precautions, protec	tiv	e 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. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	:	If specialised 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 spilt 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).
Methods and material for con	tai	nment and cleaning up
Methods for cleaning up	:	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	: Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
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.

Section 7. Handling and storage

Conditions for safe storage,	1	Store in accordance with local regulations. Store in a segregated and approved
including any		area. Store in original container protected from direct sunlight in a dry, cool and well-
incompatibilities		ventilated area, away from incompatible materials (see Section 10) and food and
		drink. Store locked up. Eliminate all ignition sources. Separate from oxidising
		materials. Keep container tightly closed and sealed until ready for use. Containers
		that have been opened must be carefully resealed and kept upright to prevent
		leakage. Do not store in unlabelled containers. Use appropriate containment to
		avoid environmental contamination. See Section 10 for incompatible materials
		before handling or use.

Section 8. Exposure controls and personal protection

Since the hazardous ingredient in this article is encapsulated, the risk of exposure by inhalation, ingestion, skin contact and eyes contact is minimum.

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits	
Organosilane bonded silica gel	ACGIH TLV (United States). Particulate matter not otherwise classified: (PNOC).: 10 mg/m ³ Form: Inhalable Particulate matter not otherwise classified: (PNOC).: 3 mg/m ³ Form: Respirable	
Acetonitrile	Safe Work Australia (Australia, 10/2022). Absorbed through skin. STEL: 101 mg/m ³ 15 minutes. STEL: 60 ppm 15 minutes. TWA: 67 mg/m ³ 8 hours. TWA: 40 ppm 8 hours.	

Biological exposure indices

No exposure indices known.

Appropriate engineering : controls	Use only with adequate ventilation. 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, vapour 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 and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
Skin protection	

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Section 8. Exposure controls and personal protection

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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 0 Devoice	and chamical properties and cafety

Section 9. Physical and chemical properties and safety characteristics

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

<u>Appearance</u>										
Physical state	:	Solid. (containing fla	immable l	iquid)						
Colour	:	Not available.	Not available.							
Odour	:	Not available.								
Odour threshold	:	Not available.								
рН	:	Not available.								
Melting point/freezing point	:	Not available.								
Boiling point, initial boiling point, and boiling range	1	Not available.	lot available.							
Flash point	1	Closed cup: -18 to 2	23°C (-0.4	to 73.4°F	-)					
Evaporation rate	:	Not available.								
Flammability	:	Contains : Flammable liquid								
Lower and upper explosion limit/flammability limit	1	Not available.								
Vapour pressure	:		Vapor	ur Press	ure at 20°C	e at 20°C Vapour pressure at 50°C				
		Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method		
		Acetonitrile	70.89	9.5	-	-	-	-		
		water	17.5	2.3	-	92.258	12.3	-		
Relative vapour density	:	Not available.		•	-					
Relative density	:	Not available.								
Solubility(ies)	:	Media			Result					
		Mobile phase Stationary phase			Soluble Insoluble)				
Partition coefficient: n- octanol/water	1	Not applicable.								
Auto-ignition temperature	:									

Date of issue/Date of revision

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Section 9. Physical and chemical properties and safety characteristics

		Ingredient name	°C	°F	Method
		Acetonitrile	524	975.2	-
December officer to me section					
Decomposition temperature		Not available.			
Viscosity	1	Not available.			
Particle characteristics					
Median particle size	1	Not applicable.			

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). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Incompatible materials	: Reactive or incompatible with the following materials: oxidising materials Incompatible with hydrogen fluoride.
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	Species	Dose	Exposure
Acetonitrile	LC50 Inhalation Vapour	Rat	17100 ppm	4 hours
	LD50 Oral	Rat	2460 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Acetonitrile	Eyes - Moderate irritant	Rabbit		24 hours 100 uL	-
	Skin - Mild irritant	Rabbit	-	500 mg	-

Sensitisation

Not available.

<u>Mutagenicity</u>		
Conclusion/Summary	: Not available.	
Carcinogenicity		
Conclusion/Summary	: Not available.	
Reproductive toxicity		
Conclusion/Summary	: Not available.	
Teratogenicity		
Conclusion/Summary	: Not available.	
Specific target organ toxic	<u>city (single exposure</u>)

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Section 11. Toxicological information

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure	:	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Potential acute health effects		
Eye contact	:	Causes serious eye damage.
Inhalation	:	No known significant effects or critical hazards.
Skin contact	:	No known significant effects or critical hazards.
Ingestion	:	No known significant effects or critical hazards.
Symptoms related to the phy	si	cal, chemical and toxicological characteristics
Eye contact	:	Adverse symptoms may include the following: pain watering redness
Inhalation	1	No specific data.
Skin contact	:	Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion	:	Adverse symptoms may include the following: stomach pains
Delayed and immediate effec	ts	as well as 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 effe	ect	<u>s</u>

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 (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
ZORBAX PrepHT XDB-C8 Chromatography Columns with Acetonitrile and Water 10 to 3 Acetonitrile		5612.2 1100	N/A N/A	56.1 11	N/A N/A
Date of issue/Date of revision : 30/06/2023	Date of previous issue	: No	previous validation	Version	:1 8/11

Section 11. Toxicological information

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Acetonitrile	Acute IC50 3685000 µg/l Fresh water Acute LC50 3600000 µg/l Fresh water Acute LC50 1000000 µg/l Fresh water Chronic NOEC 1000000 µg/l Fresh water Chronic NOEC 160000 µg/l Fresh water	Aquatic plants - <i>Lemna minor</i> Daphnia - <i>Daphnia magna</i> Fish - <i>Pimephales promelas</i> Aquatic plants - <i>Lemna minor</i> Daphnia - <i>Daphnia magna</i>	96 hours 48 hours 96 hours 96 hours 21 days

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Acetonitrile	OECD 310 Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)	70 % - Readily - 21	days -	Activated sludge
Product/ingredient name	Aquatic half-life		Photolysis	Biodegradability
Acetonitrile	-		-	Readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Organosilane bonded silica gel	≥4	<500	Low
Acetonitrile	-0.34	3	Low

Mobility in soil

Soil/water partition: Not available.coefficient (Koc)

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods The generation of waste should be avoided or minimised 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

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Section 14. Transport information

This Safety Data Sheet is written based on the encapsulated substance or mixture in this article. Since the hazardous ingredient is encapsulated, the risk of exposure by inhalation, ingestion, skin contact and eyes contact is minimum.

	ADG	IMDG	ΙΑΤΑ
UN number	UN3175	UN3175	UN3175
UN proper shipping name	SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (Acetonitrile)	SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (Acetonitrile)	Solids containing flammable liquid, n.o.s. (Acetonitrile)
Transport hazard class(es)	4.1	4.1	4.1
Packing group	11	11	11
Environmental hazards	No.	No.	No.

Additional information

Remarks:	Excepted	Quantity
i tomarito.	LACOPICO	Quantity

Remarko. Excepted Quantity		
ADG	1	Hazchem code 1Z Special provisions 216, 274
IMDG	:	Emergency schedules F-A, S-I Special provisions 216, 274
ΙΑΤΑ	:	Quantity limitation Passenger and Cargo Aircraft: 15 kg. Packaging instructions: 445. Cargo Aircraft Only: 50 kg. Packaging instructions: 448. Limited Quantities - Passenger Aircraft: 5 kg. Packaging instructions: Y441.
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 : Not available. to IMO instruments

Section 15. Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons Not regulated.

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

International regulations

<u>Chemical Weapon Convention List Schedules I, II & III Chemicals</u> Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC) Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Section 15. Regulatory information

Not listed.

Inventory listAustralia: All components are listed or exempted.New Zealand: All components are listed or exempted.United States: All components are active or exempted.

Section 16. Any other relevant information

<u>History</u>	
Date of issue/Date of revision	: 30/06/2023
Date of previous issue	: No previous validation
Version	: 1
Key to abbreviations	 ADG = Australian Dangerous Goods ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Internediate Bulk Container IMDG = International Maritime Dangerous Goods 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 SUSMP = Standard Uniform Schedule of Medicine and Poisons UN = United Nations

Procedure used to derive the classification

Classification	Justification	
• •	Expert judgment Calculation method	

V Indicates information that has changed from previously issued version.

Notice to reader

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