

SAFETY DATA SHEET

1. Identification

Product identifier: TEGO® Dispers 671

Chemical name: Solution of a pigment affinity polymer

Other means of identification

Recommended use: Industrial use

Recommended restrictions: None known.

Manufacturer/Importer/Distributor Information

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2. Hazard(s) identification

Classification according to GHS

Physical Hazards

Flammable liquids Category 3

Health Hazards

Acute toxicity (Oral) Category 5

Skin Corrosion/Irritation Category 2

Serious Eye Damage/Eye Irritation Category 2A

Specific Target Organ Toxicity -
Single Exposure Category 3
(Narcotic effect.)

Specific Target Organ Toxicity -
Repeated Exposure Category 2

Environmental Hazards

Acute hazards to the aquatic environment	Category 2
Chronic hazards to the aquatic environment	Category 3

Label Elements

Hazard Symbol:



Signal Word: Warning

Hazard Statement: Flammable liquid and vapor.
May be harmful if swallowed.
Causes skin irritation.
Causes serious eye irritation.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.
Toxic to aquatic life.
Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response: Call a POISON CENTER or doctor/ physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water [or shower]. If skin irritation occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instructions on this label). IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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/attention. IF exposed or concerned: Get medical advice/attention.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal: Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

Other hazards: None known.

3. Composition/information on ingredients

Chemical name:
 Solution of a pigment affinity polymer

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Butyl acetate	No data available.	123-86-4	10 - <30%
xylene, mixture of isomers	No data available.	1330-20-7	10 - <30%
2-methoxy-1-methylethyl acetate	No data available.	108-65-6	<10%
ethylbenzene	No data available.	100-41-4	<10%
decan-1-ol	No data available.	112-30-1	<5%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The exact concentration has been withheld as a trade secret.

4. First-aid measures

Description of necessary first-aid measures

General information:	Remove soiled or soaked clothing immediately
Inhalation:	If inhaled remove from side of exposure to fresh air, seek medical advice.
Skin Contact:	In case of contact with skin wash off with soap and water. If skin irritation persists, call a physician.
Eye contact:	In case of contact with eyes rinse thoroughly with plenty of water. If symptoms persist, seek medical advice.
Ingestion:	Thoroughly clean the mouth with water In case of discomfort: Supply with medical care.
Personal Protection for First-aid Responders:	No data available.

Most important symptoms and effects, both acute and delayed

Symptoms: Prolonged skin contact may cause skin irritation and/or dermatitis. Depending on the dose inhalation and/or ingestion may cause: headache, inebriation, unconsciousness.

Hazards: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: Treat symptomatically.

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: foam, carbon dioxide, dry powder, water spray.

Unsuitable extinguishing media: High volume water jet.

Special hazards arising from the substance or mixture: In the event of fire the following can be released: - carbon dioxide, carbon monoxide - Nitrogen oxides (NOx) Under certain conditions of combustion traces of other toxic substances cannot be excluded

Special protective equipment and precautions for fire-fighters

Special fire-fighting procedures: Keep away from sources of ignition. Take action to prevent static discharges. Vapours may form explosive mixtures with air. Cool endangered containers by water spray

Special protective equipment for fire-fighters: Do not inhale explosion and/or combustion gases. Self-contained breathing apparatus.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Keep away sources of ignition. Ensure adequate ventilation.

Accidental release measures: No data available.

Methods and material for containment and cleaning up: Take up with absorbent material (eg sand, kieselguhr, universal binder) Dispose of absorbed material in accordance with the regulations.

Environmental Precautions: Do not allow to enter drains or waterways Prevent product from getting into subsoil/soil.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation): No data available.

Safe handling advice: Provide good ventilation of working area (local exhaust

ventilation if necessary). Avoid contact with skin and eyes.
 Do not inhale gases/vapours/aerosols.

Contact avoidance measures: No data available.

Storage

Safe storage conditions: Keep container tightly closed in a cool, well-ventilated place. Keep away from heat. Protect from frost.

Safe packaging materials: No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Observe national threshold limit values.

Biological Limit Values

Observe national threshold limit values.

Appropriate Engineering Controls No data available.

Individual protection measures, such as personal protective equipment

General information: No data available.

Eye/face protection: Safety glasses

Skin Protection

Hand Protection: Material: Nitrile rubber.
 Break-through time: 30 min
 Glove thickness: 0,4 mm

Other: protective clothing

Respiratory Protection: in case of formation of vapours/aerosols: Short term: filter apparatus, combination filter A-P2

Hygiene measures: Wash hands before breaks and immediately after handling the product. When using do not eat, drink or smoke.
 Remove soiled or soaked clothing immediately.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Physical state: liquid
Form: liquid
Color: yellowish
Odor: Aromatic
Odor Threshold: not measured

Freezing point:	not measured
Boiling Point:	not measured
Flammability:	not measured
Upper/lower limit on flammability or explosive limits	
Explosive limit - upper:	not measured
Explosive limit - lower:	not measured
Flash Point:	73 °F/23 °C (DIN EN ISO 2719)
Self Ignition Temperature:	not measured
Decomposition Temperature:	not measured
pH:	5 - 7 (100 g/l, 25 °C) in Water
Viscosity	
Dynamic viscosity:	1.500 mPa.s (68 °F/20 °C, Brookf-Visk.RVT Sp.4)
Kinematic viscosity:	1476 mm ² /s (68 °F/20 °C, calculated)
Flow Time:	No data available.
Solubility(ies)	
Solubility in Water:	not measured
Solubility (other):	not measured
Partition coefficient (n-octanol/water):	not measured
Vapor pressure:	not measured
Relative density:	not measured
Density:	1,016 g/cm ³ (68 °F/20 °C)
Bulk density:	No data available.
Relative vapor density:	not measured
Other information	
Explosive properties:	not measured
Oxidizing properties:	not oxidizing
Minimum ignition temperature:	not measured
Metal Corrosion:	Not corrosive to metals
Evaporation Rate:	not measured

10. Stability and reactivity

Reactivity:	see section "Possibility of hazardous reactions".
Chemical Stability:	The product is stable under normal conditions.
Possibility of hazardous reactions:	No hazardous reactions with proper storage and handling
Conditions to avoid:	Open flames, sparks or input of much heat Freezing.
Incompatible Materials:	Not known.
Hazardous Decomposition Products:	None with proper storage and handling.

11. Toxicological information

Information on toxicological effects

Information on likely routes of exposure

Inhalation:	Information on effects are given below.
Skin Contact:	Information on effects are given below.
Eye contact:	Information on effects are given below.
Ingestion:	Information on effects are given below.

Acute toxicity (list all possible routes of exposure)

Oral

Product:	LD 50 (ATEmix): 3.613 mg/kg
Components:	
Butyl acetate	LD 50 (Rat): 10.760 mg/kg LD 50 (Rat): 12.789 mg/kg
xylene, mixture of isomers	LD 50 (Rat): 3.523 mg/kg LD 50 (Rat): > 4.000 mg/kg
2-methoxy-1-methylethyl acetate	LD 50 (Rat): 6.190 mg/kg LD 50 (Rat): 6.190 - 10.000 mg/kg LD 50 (Rat): 5.155 mg/kg
ethylbenzene	LD 50 (Rat): 3.500 mg/kg
decan-1-ol	LD 50 (Rat): > 5.000 mg/kg

Dermal

Product:	LD 50 (ATEmix): > 5.000 mg/kg
Components:	
Butyl acetate	LD 50 (Rabbit): > 14.112 mg/kg
xylene, mixture of isomers	LD 50 (Rabbit): > 4.200 mg/kg
2-methoxy-1-methylethyl acetate	LD 50 (Rabbit): > 5.000 mg/kg
ethylbenzene	LD 50 (Rabbit): 15.400 mg/kg
decan-1-ol	LD 50 (Rabbit): > 5.000 mg/kg

Inhalation

Product:	LC 50 (ATEmix, 4 h): > 40 mg/l Vapour
Components:	
Butyl acetate	LC 50 (Rat, 4 h): 23,4 mg/l Dusts, mists and fumes No data available., Vapour

xylene, mixture of isomers	LC 50 (Rat, 4 h): 27,5 mg/l Vapour No data available., Dusts, mists and fumes
2-methoxy-1-methylethyl acetate	LC 50 (Rat, 4 h): > 35,7 mg/l Vapour Not applicable, Dusts, mists and fumes
ethylbenzene	LC 50 (Rat, 4 h): 17,6 mg/l Vapour Dusts, mists and fumes, No data available.
decan-1-ol	Vapour, No data available. Dusts, mists and fumes, No data available.

Repeated dose toxicity

Product:	No data available.
Components:	
Butyl acetate	No data available.
xylene, mixture of isomers	No data available.
2-methoxy-1-methylethyl acetate	No data available.
ethylbenzene	No data available.
decan-1-ol	No data available.

Skin Corrosion/Irritation

Product:	No data available.
Components:	
Butyl acetate	OECD 404 (Rabbit): Not irritating
xylene, mixture of isomers	(Rabbit): Irritating.
2-methoxy-1-methylethyl acetate	OECD 404 (Rabbit): Not irritating
ethylbenzene	(Rabbit): Not irritating
decan-1-ol	US-EPA-method (Rabbit): Slightly irritating.

Serious Eye Damage/Eye Irritation

Product:	No data available.
Components:	
Butyl acetate	OECD 405 (Rabbit): Not irritating
xylene, mixture of isomers	(Rabbit): Irritating.
2-methoxy-1-methylethyl acetate	OECD 405 (Rabbit): Not irritating
ethylbenzene	(Rabbit): Not irritating
decan-1-ol	US-EPA-method (Rabbit): Irritating.

Respiratory or Skin Sensitization

Product:	No data available.
Components:	
Butyl acetate	Maximization Test, OECD 406 (Guinea Pig): Not a skin sensitizer.
xylene, mixture of isomers	Local Lymph Node Assay (LLNA), OECD 429 (Mouse): Not a skin sensitizer.
2-methoxy-1-methylethyl acetate	Maximization Test, OECD 406 (Guinea Pig): Not a skin sensitizer.
ethylbenzene	Not a skin sensitizer. Literature

decan-1-ol	Buehler Test, OPPTS 870.2600 (Guinea Pig): Not a skin sensitizer.
Carcinogenicity	
Product:	No data available.
Components:	
Butyl acetate	No data available.
xylene, mixture of isomers	No data available.
2-methoxy-1-methylethyl acetate	No data available.
ethylbenzene	No data available.
decan-1-ol	No data available.

Germ Cell Mutagenicity

No data available.

In vitro

Product:	No data available.
Components:	
Butyl acetate	No data available.
xylene, mixture of isomers	Chromosomal aberration: negative sister chromatid exchange assay: negative
2-methoxy-1-methylethyl acetate	No data available.
ethylbenzene	gene mutation test (OECD 476): negative Chromosomal aberration (OECD 473): negative
decan-1-ol	No data available.

In vivo

Product:	No data available.
Components:	
Butyl acetate	No data available.
xylene, mixture of isomers	dominant lethal test (OECD 478) Dermal (Mouse, Male): negative dominant lethal test (OECD 478) Intraperitoneal (Mouse, Male): negative
2-methoxy-1-methylethyl acetate	No data available.
ethylbenzene	Micronucleus test (OECD 474) Oral (Mouse, Male): negative unscheduled DNA synthesis assay (OECD 486) Inhalation - vapor (Mouse, Female, Male): negative
decan-1-ol	No data available.

Reproductive toxicity

Product:	No data available.
Components:	
Butyl acetate	No data available.
xylene, mixture of isomers	No data available.
2-methoxy-1-methylethyl acetate	No data available.
ethylbenzene	No data available.
decan-1-ol	No data available.

Specific Target Organ Toxicity - Single Exposure

Product:	No data available.
Components:	
Butyl acetate	Inhalation - vapor: Central nervous system. - Category 3 with narcotic effects. May cause drowsiness or dizziness.

xylylene, mixture of isomers	Inhalation - vapor: Respiratory system - Category 3 with respiratory tract irritation.
2-methoxy-1-methylethyl acetate	Inhalation - vapor: Central nervous system. - Category 3 with narcotic effects.
ethylbenzene	No data available.
decan-1-ol	No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product:	No data available.
Components:	
Butyl acetate	No data available.
xylylene, mixture of isomers	Oral Inhalation - vapor: Liver - Category 2 May cause damage to organs through prolonged or repeated exposure.
2-methoxy-1-methylethyl acetate	No data available.
ethylbenzene	Oral Inhalation - vapor: Ear - Category 2 May cause damage to organs through prolonged or repeated exposure.
decan-1-ol	No data available.

Aspiration Hazard

Product:	Not classified
Components:	
Butyl acetate	Not classified
xylylene, mixture of isomers	May be fatal if swallowed and enters airways.
2-methoxy-1-methylethyl acetate	Not classified
ethylbenzene	May be fatal if swallowed and enters airways.
decan-1-ol	Not classified

Information on health hazards

Other hazards

Product:	No data available.
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12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product:	No data available.
Components:	
Butyl acetate	LC 50 (Pimephales promelas, 96 h): 18 mg/l
xylylene, mixture of isomers	LC 50 (Oncorhynchus mykiss, 96 h): 2,6 mg/l
2-methoxy-1-methylethyl acetate	LC 50 (Oncorhynchus mykiss, 96 h): > 100 - 180 mg/l NOEC (Oncorhynchus mykiss, 96 h): 100 mg/l
ethylbenzene	LC 50 (Atlantic silverside (Menidia menidia), 96 h): 5,1 mg/l salt water NOEC (Atlantic silverside (Menidia menidia), 96 h): 3,3 mg/l salt water

LC 50 (Oncorhynchus mykiss, 96 h): 4,2 mg/l

decan-1-ol LC 50 (Oncorhynchus mykiss, 96 h): > 4,2 - 5,6 mg/l
 LC 50 (Oncorhynchus mykiss, 96 h): 5,7 mg/l
 LC 50 (Alburnus alburnus, 96 h): 7,2 mg/l

Aquatic Invertebrates

Product:

No data available.

Components:

Butyl acetate EC 50 (Daphnia magna, 48 h): 44 mg/l
 xylene, mixture of EC 50 (Daphnia magna, 24 h): 1 mg/l
 isomers
 2-methoxy-1-methylethyl EC 50 (Daphnia magna, 48 h): > 500 mg/l
 acetate
 ethylbenzene LC 50 (Americamysis bahia, 48 h): > 5,2 mg/l salt water
 EC 50 (Daphnia magna, 48 h): 1,8 - 2,4 mg/l
 decan-1-ol LC 50 (Nitokra spinipes, 96 h): 3,1 mg/l
 EC 50 (Daphnia magna, 48 h): 7 mg/l

Toxicity to Aquatic Plants

Product:

No data available.

Components:

Butyl acetate EC 50 (Desmodesmus subspicatus (green algae), 72 h): 647 mg/l
 growth rate
 xylene, mixture of EC 50 (Algae (Pseudokirchneriella subcapitata), 72 h): 4,36 mg/l (OECD
 isomers 201) growth rate
 EC 50 (Algae (Pseudokirchneriella subcapitata), 72 h): 2,2 mg/l (OECD
 201) Biomass
 2-methoxy-1-methylethyl EC 50 (Algae (Pseudokirchneriella subcapitata), 96 h): > 1.000 mg/l
 acetate (OECD 201)
 ethylbenzene EC 50 (Algae (Pseudokirchneriella subcapitata), 72 h): 5,4 mg/l (US-
 EPA-method)
 EC 50 (Skeletonema costatum (marine diatom), 72 h): 4,9 mg/l (US-
 EPA-method) saltwater
 decan-1-ol EC 50 (Selenastrum capricornutum (green algae), 72 h): 1,5 mg/l
 EC 10 (Selenastrum capricornutum (green algae), 72 h): 0,7 mg/l

Toxicity to microorganisms

Product:

No data available.

Components:

Butyl acetate IC 50 (Tetrahymena pyriformis, 40 h): 356 mg/l
 xylene, mixture of NOEC (activated sludge, 3 h): 157 mg/l (OECD 209)
 isomers
 2-methoxy-1-methylethyl EC 10 (activated sludge, 0,5 h): > 1.000 mg/l (OECD 209)
 acetate
 ethylbenzene EC 20 (activated sludge, 0,5 h): Approximate 200 mg/l (OECD 209) EC
 50 (activated sludge, 0,5 h): Approximate 600 mg/l (OECD 209)
 decan-1-ol EC0 (Pseudomonas putida, 30 min): 10.000 mg/l EC 50 (Pseudomonas
 putida, 3 h): > 100 mg/l (OECD 209)

Chronic hazards to the aquatic environment:

Fish

Product:

No data available.

Components:

Butyl acetate No data available.

xylene, mixture of isomers	NOEC (Oncorhynchus mykiss, 56 d): > 1,3 mg/l
2-methoxy-1-methylethyl acetate	NOEC (Oncorhynchus mykiss, 56 d): > 1,3 mg/l
ethylbenzene	NOEC (Oryzias latipes, 14 d): 47,5 mg/l (OECD 204)
decan-1-ol	LC 50 (Oryzias latipes, 14 d): 63,5 mg/l (OECD 204)
	No data available.
	NOEC (Pimephales promelas, 33 d): 0,26 mg/l (OECD 210)
	Lowest Observed Effect Concentration (Pimephales promelas, 33 d): 0,54 mg/l (OECD 210)

Aquatic Invertebrates

Product:

No data available.

Components:

Butyl acetate	No data available.
xylene, mixture of isomers	NOEC (Ceriodaphnia dubia, 7 d): 1,17 mg/l (US-EPA-method)
	NOEC (Ceriodaphnia dubia, 7 d): 0,96 mg/l (US-EPA-method)
	EL50 (Daphnia magna, 21 d): 2,9 mg/l (OECD 211)
	EC 10 (Daphnia magna, 21 d): 1,91 mg/l (OECD 211)
	NOEC (Daphnia magna, 21 d): 1,57 mg/l (OECD 211)
2-methoxy-1-methylethyl acetate	NOEC (Daphnia magna, 21 d): 100 mg/l (OECD 211)
ethylbenzene	EC 50 (Daphnia magna, 21 d): > 100 mg/l (OECD 211)
	LC 50 (Ceriodaphnia dubia, 7 d): 3,6 mg/l (US-EPA-method)
	IC 50 (Ceriodaphnia dubia, 7 d): 3,3 mg/l (US-EPA-method)
	NOEC (Ceriodaphnia dubia, 7 d): 0,96 mg/l (US-EPA-method)
	Lowest Observed Effect Concentration (Ceriodaphnia dubia, 7 d): 1,7 mg/l (US-EPA-method)
decan-1-ol	EC 10 (Daphnia magna, 21 d): 210 µg/l (OECD 211)
	NOEC (Daphnia magna, 21 d): 110 µg/l (OECD 211)

Toxicity to Aquatic Plants

Product:

No data available.

Components:

Butyl acetate	NOEC (Desmodesmus subspicatus (green algae), 72 h): 200 mg/l growth rate
xylene, mixture of isomers	NOEC (Algae (Pseudokirchneriella subcapitata), 72 h): 1,3 mg/l (OECD 201) growth rate
	NOEC (Algae (Pseudokirchneriella subcapitata), 72 h): 0,44 mg/l (OECD 201) Biomass
2-methoxy-1-methylethyl acetate	NOEC (Algae (Pseudokirchneriella subcapitata), 96 h): 1.000 mg/l (OECD 201)
ethylbenzene	No data available.
decan-1-ol	No data available.

Toxicity to microorganisms

Product:

No data available.

Components:

Butyl acetate	IC 50 (Tetrahymena pyriformis, 40 h): 356 mg/l
xylene, mixture of isomers	NOEC (activated sludge, 3 h): 157 mg/l (OECD 209)
2-methoxy-1-methylethyl acetate	EC 10 (activated sludge, 0,5 h): > 1.000 mg/l (OECD 209)
ethylbenzene	EC 20 (activated sludge, 0,5 h): Approximate 200 mg/l (OECD 209) EC 50 (activated sludge, 0,5 h): Approximate 600 mg/l (OECD 209)
decan-1-ol	EC0 (Pseudomonas putida, 30 min): 10.000 mg/l EC 50 (Pseudomonas putida, 3 h): > 100 mg/l (OECD 209)

Persistence and Degradability

Biodegradation

Product:	No data available.
Components:	
Butyl acetate	83 % (28 d, OECD 301 D) The product is easily biodegradable., aerobic
xylene, mixture of isomers	98 % (28 d, OECD 301 F) The product is easily biodegradable., aerobic
2-methoxy-1-methylethyl acetate	83 % (28 d, OECD 301 F) The product is easily biodegradable., aerobic
ethylbenzene	70 - 80 % (28 d, ISO 14593) The product is easily biodegradable., aerobic
decan-1-ol	82 % (28 d, OECD 301 B) The product is easily biodegradable., aerobic

BOD/COD Ratio

Product:	No data available.
Components:	
Butyl acetate	No data available.
xylene, mixture of isomers	No data available.
2-methoxy-1-methylethyl acetate	No data available.
ethylbenzene	No data available.
decan-1-ol	No data available.

Bioaccumulative potential
Bioconcentration Factor (BCF)

Product:	No data available.
Components:	
Butyl acetate	No data available.
xylene, mixture of isomers	No data available.
2-methoxy-1-methylethyl acetate	No data available.
ethylbenzene	No data available.
decan-1-ol	Does not significantly accumulate in organisms.

Partition Coefficient n-octanol / water (log Kow)

Product:	Log Kow: not measured
Components:	
Butyl acetate	Log Kow: 2,3 (OECD 117)
xylene, mixture of isomers	Log Kow: 3,16 20 °C
2-methoxy-1-methylethyl acetate	No data available.
ethylbenzene	Log Kow: 3,6 20 °C (EU Method A.8)
decan-1-ol	Log Kow: 4,5 25 °C (OECD 117)

Mobility in soil:

Product	No data available.
Components:	
Butyl acetate	No data available.
xylene, mixture of isomers	No data available.
2-methoxy-1-methylethyl acetate	No data available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

15. Regulatory information**16. Other information, including date of preparation or last revision**

Issue Date: 04.03.2019

Version #: 2.2

Further Information: No data available.

Revision Information: Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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