

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



RESYN® 1601 Emulsion 251601

Version	Revision Date:	SDS Number:	Date of last issue: -
1.1	2024/03/20	000000034041	Date of first issue: 2019/04/30

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : RESYN® 1601 Emulsion 251601

Product code : 000000000021006517

Chemical nature : Water-borne polymer emulsion.

Manufacturer or supplier's details

Company : Celanese (Shanghai) International Trading Co., Ltd
赛拉尼斯(上海)国际贸易有限公司

Address : 4560 Jinke Road, Zhangjiang, Pudong
Shanghai, China 201210

Telephone : 86-21-38619288

Emergency telephone number : CHEMTREC International phone number: +1-703-527 3887,
+86 532 8388-9090 (China, 24h)

E-mail address : HazCom@celanese.com

Recommended use of the chemical and restrictions on use

Recommended use : For industrial use only.

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	: liquid
Colour	: milky
Odour	: sweet

Harmful to aquatic life with long lasting effects.

GHS Classification

Short-term (acute) aquatic hazard : Category 3

Long-term (chronic) aquatic hazard : Category 3

GHS label elements

Hazard pictograms : None

Signal word : None

Hazard statements : H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
P273 Avoid release to the environment.

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Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Physical and chemical hazards

Not classified based on available information.

Health hazards

Not classified based on available information.

Environmental hazards

Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
vinyl acetate	108-05-4	≥ 0.25 - < 1
mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	55965-84-9	≥ 0.0025 - < 0.025

4. FIRST AID MEASURES

- | | |
|-------------------------|---|
| General advice | : Remove contaminated, soaked clothing immediately and dispose of safely
Do not leave the victim unattended.
Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Symptoms of poisoning may appear several hours later. |
| If inhaled | : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
Call a physician or poison control centre immediately. |
| In case of skin contact | : Wash off with soap and water.
If symptoms persist, call a physician. |
| In case of eye contact | : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
If eye irritation persists, consult a specialist.
Keep eye wide open while rinsing. |
| If swallowed | : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Induce vomiting immediately and call a physician. |

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Most important symptoms and effects, both acute and delayed	: Take victim immediately to hospital.
Notes to physician	: None known.
	: Treat symptomatically.

5. FIREFIGHTING MEASURES

Unsuitable extinguishing media	: High volume water jet
Specific hazards during fire-fighting	: Do not use a solid water stream as it may scatter and spread fire.
	: Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	: Carbon oxides
Specific extinguishing methods	: Do not allow run-off from fire fighting to enter drains or water courses. The product itself does not burn. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for firefighters	: Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Avoid contact with the skin and the eyes. Ensure adequate ventilation. Material can create slippery conditions. Use personal protective equipment. Evacuate personnel to safe areas.
Environmental precautions	: Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system.
	: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Handling

Advice on protection against	: The product is not flammable.
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fire and explosion

Normal measures for preventive fire protection.

Advice on safe handling : For personal protection see section 8.
Use only with adequate ventilation.
Do not breathe vapours or spray mist.
Avoid inhalation, ingestion and contact with skin and eyes.
Smoking, eating and drinking should be prohibited in the application area.
Handle in accordance with good industrial hygiene and safety practice.
Avoid formation of aerosol.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
Provide sufficient air exchange and/or exhaust in work rooms.
Dispose of rinse water in accordance with local and national regulations.

Avoidance of contact : Water-reactive substances
Not applicable

Storage

Conditions for safe storage : Store locked up.
Keep tightly closed in a dry and cool place.
Protect from frost
To maintain product quality, do not store in heat or direct sunlight.
Agitate before use
Electrical installations / working materials must comply with the technological safety standards.
Observe label precautions.
Prevent unauthorized access.
Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.

Further information on storage conditions : Store in a cool place- Protect from freezing

Materials to avoid : Do not store near acids.

Recommended storage temperature : 5 - 35 °C

Further information on storage stability : No decomposition if stored and applied as directed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
vinyl acetate	108-05-4	PC-TWA	10 mg/m3	CN OEL

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	Further information: G2B - Possibly carcinogenic to humans			
		PC-STEEL	15 mg/m3	CN OEL
	Further information: G2B - Possibly carcinogenic to humans			
		TWA	10 ppm	ACGIH
		STEEL	15 ppm	ACGIH

Engineering measures : Local exhaust

Personal protective equipment

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.
Respirator with filter for organic vapour
Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.
No personal respiratory protective equipment normally required.

Eye/face protection : Safety glasses with side-shields
Eye wash bottle with pure water
Tightly fitting safety goggles

Skin and body protection : Impervious clothing

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hand protection

Remarks : Impervious gloves
The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Hygiene measures : General industrial hygiene practice.
Wash hands before breaks and at the end of workday.
Avoid contact with skin, eyes and clothing.
When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : milky

Odour : sweet

pH : 3.8 - 4.7
Method: ISO 976

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Melting point/range	: ca. 0 °C
Boiling point/boiling range	: 100 °C
Flash point	: Not applicable
Flammability (solid, gas)	: The product is not flammable.
Vapour pressure	: 24 hPa (20 °C)
Bulk density	: 9 Lb/Gal
Solubility(ies)	
Water solubility	: miscible
Viscosity	
Viscosity, dynamic	: 1,500 - 2,800 mPa.s (25 °C) Method: Brookfield Visc. RVT Sp. 3 / 20 r.p.m.

10. STABILITY AND REACTIVITY

Reactivity	: No decomposition if stored and applied as directed.
Chemical stability	: No decomposition if stored and applied as directed.
Possibility of hazardous reactions	: Stable under recommended storage conditions. No hazards to be specially mentioned. No decomposition if stored and applied as directed.
Conditions to avoid	: Protect from frost, heat and sunlight. No data available
Incompatible materials	: Water-reactive substances Not applicable

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified due to lack of data.

Components:

vinyl acetate:

Acute oral toxicity	: LD50 (Rat): 3,500 mg/kg
Acute inhalation toxicity	: LC50 (Rat): 15.810 mg/l Exposure time: 4 h Test atmosphere: vapour
Acute dermal toxicity	: LD50 (Rabbit, male): 7,440 mg/kg

mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1):

Acute inhalation toxicity	: LC50 (Rat): > 0.5 - 2 mg/l Exposure time: 4 h Test atmosphere: vapour
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Skin corrosion/irritation

Not classified due to lack of data.

Components:

vinyl acetate:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

Serious eye damage/eye irritation

Not classified due to lack of data.

Components:

vinyl acetate:

Species	:	Rabbit
Result	:	No eye irritation
Method	:	OECD Test Guideline 405

Respiratory or skin sensitisation

Skin sensitisation

Not classified due to lack of data.

Respiratory sensitisation

Not classified due to lack of data.

Components:

vinyl acetate:

Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	Not a skin sensitizer.

Germ cell mutagenicity

Not classified due to lack of data.

Components:

vinyl acetate:

Genotoxicity in vitro	:	Test Type: Ames test Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative
		Test Type: Chromosome aberration test in vitro Test system: human lymphoblastoid cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: positive
		Method: OECD Test Guideline 487

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Result: positive

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse
Method: OECD Test Guideline 474
Remarks: ambiguous

Species: Mouse
Result: negative

Carcinogenicity

Not classified due to lack of data.

Components:

vinyl acetate:

Species : Rat
Application Route : Inhalation
Exposure time : 104 weeks
: 0.176 mg/l
Result : positive

Species : Rat
Application Route : Oral
Exposure time : 104 weeks
: 31 mg/kg food
Result : positive

Reproductive toxicity

Not classified due to lack of data.

Components:

vinyl acetate:

Effects on fertility : Species: Rat
Application Route: Oral
General Toxicity - Parent: NOAEL: 1,000 mg/kg body weight
Method: OECD Test Guideline 416
Result: No toxicity to reproduction

Effects on foetal development : Species: Rat
Application Route: Inhalation and oral drinking water
Developmental Toxicity: 200
Method: OECD Test Guideline 414
Result: no adverse developmental effects

STOT - single exposure

Not classified due to lack of data.

STOT - repeated exposure

Not classified due to lack of data.

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Repeated dose toxicity

Components:

vinyl acetate:

Species	: Rat
NOAEL	: 281 mg/kg
Application Route	: Oral
Method	: OECD Test Guideline 408

Species	: Rat
NOAEL	: 0.176 mg/l
Application Route	: Inhalation
Method	: OECD Test Guideline 453

Aspiration toxicity

Not classified due to lack of data.

Further information

Product:

Remarks	: No data available
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12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

vinyl acetate:

Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 12.6 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
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Toxicity to algae/aquatic plants	: EC50 (Pseudokirchneriella subcapitata (microalgae)): 12.7 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
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Toxicity to fish (Chronic toxicity)	: NOEC (Pimephales promelas (fathead minnow)): 0.16 mg/l Exposure time: 34 d Method: OECD Test Guideline 210
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Toxicity to microorganisms	: EC3 (Pseudomonas putida): 6 mg/l Exposure time: 16 h
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mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1):

Toxicity to fish	: LC50 (Oncorhynchus mykiss (rainbow trout)): 0.19 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
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Toxicity to daphnia and other	: EC50 (Daphnia magna (Water flea)): 0.16 mg/l
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aquatic invertebrates

Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants

: EC50 (Pseudokirchneriella subcapitata (green algae)): 0.0052 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

NOEC (Skeletonema costatum (marine diatom)): 0.00049 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 100

M-Factor (Chronic aquatic toxicity) : 100

Persistence and degradability

Components:

vinyl acetate:

Biodegradability : MITI Test
Inoculum: activated sludge
Result: Readily biodegradable.
Method: OECD Test Guideline 301C

Bioaccumulative potential

Components:

vinyl acetate:

Bioaccumulation : Remarks: Does not bioaccumulate.

Mobility in soil

No data available

Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life with long lasting effects.

Components:

vinyl acetate:

Results of PBT and vPvB assessment : The substance does not meet the criteria for PBT / vPvB according to REACH, Annex XIII

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13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Dispose of in accordance with local regulations. The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Contaminated packaging	:	Empty containers should be taken to an approved waste handling site for recycling or disposal. Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
Labels	:	Not applicable

IATA-DGR

UN/ID No.	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
Labels	:	Not applicable
Packing instruction (cargo aircraft)	:	Not applicable
Packing instruction (passenger aircraft)	:	Not applicable

IMDG-Code

UN number	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
Labels	:	Not applicable
EmS Code	:	Not applicable
Marine pollutant	:	Not applicable

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

Not applicable for product as supplied.

National Regulations

GB 6944/12268

UN number	:	Not applicable
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Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
Labels	:	Not applicable

Special precautions for user

Not applicable

15. REGULATORY INFORMATION

National regulatory information

Law on the Prevention and Control of Occupational Diseases

16. OTHER INFORMATION

Revision Date	:	2024/03/20
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Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
CN OEL	:	Occupational exposure limits for hazardous agents in the workplace - Chemical hazardous agents.
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
CN OEL / PC-TWA	:	Permissible concentration - time weighted average
CN OEL / PC-STEEL	:	Permissible concentration - short term exposure limit

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation,

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tion, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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