

# SAFETY DATA SHEET

Print date 23-Dec-2020



Revision Number 1

FastCast Resolver A, 7.5%, 10%, 12%

Print date 23-Dec-2020

## 1. Identification

Product identifier

Product Name FastCast Resolver A, 7.5%, 10%, 12%

Other means of identification

Catalog Number(s) 10033830, 10033831, 10033832, 10033838, 10033839, 10033840

Recommended use of the chemical and restrictions on use

Recommended use Laboratory chemicals

Details of the supplier of the safety data sheet

Corporate Headquarters	Manufacturer Address	Legal Entity / Contact Address
Bio-Rad Laboratories Inc. 1000 Alfred Nobel Drive Hercules, CA 94547 USA	Bio-Rad Laboratories, Life Science Group 2000 Alfred Nobel Drive Hercules, California 94547 USA	Bio-Rad Laboratories Life Science 2000 Alfred Nobel Drive Hercules, California 94547
Technical Service	1-800-424-6723 support@bio-rad.com	
Emergency telephone number		
24 Hour Emergency Phone Number	CHEMTRAC USA: 1 (800) 424-9300	

## 2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1B
Reproductive toxicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 1

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Danger

Hazard statements

Harmful if swallowed  
Causes skin irritation  
Causes serious eye irritation  
May cause an allergic skin reaction  
May cause genetic defects  
May cause cancer  
Suspected of damaging fertility or the unborn child  
Causes damage to organs through prolonged or repeated exposure



Appearance clear liquid Physical state Liquid Odor Odorless

### Precautionary Statements - Prevention

Do not handle until all safety precautions have been read and understood.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Contaminated work clothing must not be allowed out of the workplace.  
Do not breathe dust/fume/gas/mist/vapors/spray.  
Wash face, hands and any exposed skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.

### Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention.  
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.  
Take off contaminated clothing and wash it before reuse.  
If ON SKIN: Wash with plenty of water and soap.  
If skin irritation or rash occurs: Get medical advice/attention.  
IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth.

### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

### Unknown acute toxicity

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

### Other information

## 3. Composition/information on ingredients

Substance

Not applicable

Mixture

Chemical name	CAS No	Weight-%	Trade secret
Acrylamide***	79-06-1	10 - 20	*
Trade secret***		2.5 - 5	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

## 4. First-aid measures

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**Description of first aid measures**

General advice	IF exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance.
Inhalation	Get medical attention immediately if symptoms occur. Remove to fresh air.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
Skin contact	May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician. Wash off immediately with soap and plenty of water for at least 15 minutes.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

**Most important symptoms and effects, both acute and delayed**

Symptoms Itching, Rashes, Hives. May cause redness and tearing of the eyes. Burning sensation.

**Indication of any immediate medical attention and special treatment needed**

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.

**5. Fire-fighting measures**

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	No information available.
Specific hazards arising from the chemical	Product is or contains a sensitizer. May cause sensitization by skin contact.
Explosion data	Sensitivity to mechanical impact: None. Sensitivity to static discharge: None.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures**

Personal precautions	Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.
Other information	Refer to protective measures listed in Sections 7 and 8.

**Methods and material for containment and cleaning up**

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Pick up and transfer to properly labeled containers.

**7. Handling and storage****Precautions for safe handling**

Advice on safe handling In case of insufficient ventilation, wear suitable respiratory equipment. Remove contaminated clothing and shoes. Ensure adequate ventilation. Take off contaminated clothing and wash before reuse. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

**Conditions for safe storage, including any incompatibilities**

Storage Conditions Keep out of the reach of children. Store locked up. Keep containers tightly closed in a dry, cool and well-ventilated place. Store according to product and label instructions.

**8. Exposure controls/personal protection****Control parameters****Exposure Limits**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acrylamide*** 79-06-1	TWA: 0.03 mg/m <sup>3</sup> inhalable fraction and vapor S*	TWA: 0.3 mg/m <sup>3</sup> (vacated) TWA: 0.03 mg/m <sup>3</sup> (vacated) S*	IDLH: 60 mg/m <sup>3</sup> TWA: 0.03 mg/m <sup>3</sup>
Trade secret***	No data available	TWA: 15 mg/m <sup>3</sup> mist, total particulate TWA: 5 mg/m <sup>3</sup> mist, respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> mist, total particulate (vacated) TWA: 5 mg/m <sup>3</sup> mist, respirable fraction	*

**Appropriate engineering controls**

Engineering controls Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

Eye/face protection	Wear safety glasses with side shields (or goggles).
Hand protection	Impervious gloves. Wear suitable gloves.
Skin and body protection	Long sleeved clothing. Wear suitable protective clothing.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

**9. Physical and chemical properties****Information on basic physical and chemical properties**

Physical state	Liquid
Appearance	clear liquid
Color	colorless
Odor	Odorless
Odor threshold	No information available

Property	Values	Remarks • Method
pH	No information available	
Melting point / freezing point	No data available	None known
Boiling point / boiling range	= 100 °C / 212 °F = 160 °C / 320 °F	None known
Flash point		
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	Miscible in water	
Solubility in other solvents	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
<b>Other information</b>		
Explosive properties	Not applicable	
Oxidizing properties	Not applicable	
Softening point	Not applicable	
Molecular weight	Not applicable	
VOC Content (%)	Not applicable	
Liquid Density	1.0258	

## 10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	None known based on information supplied.
Incompatible materials	Strong acids. Strong bases. Strong oxidizing agents.
Hazardous decomposition products	None known based on information supplied.

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

Inhalation	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
Eye contact	Irritating to eyes. Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components).
Skin contact	May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. Causes skin irritation. (based on components). Specific test data for the substance or mixture is not available.

**Ingestion** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Specific test data for the substance or mixture is not available. Harmful if swallowed. (based on components).

### Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** Itching, Rashes, Hives, Redness. May cause redness and tearing of the eyes.

### Acute toxicity

#### Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	928.90 mg/kg
ATEmix (dermal)	7,955.40 mg/kg
ATEmix (inhalation-dust/mist)	11.30 mg/l

### Unknown acute toxicity

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

### Component Information

Chemical name	Orai LD50	Dermal LD50	Inhalation LC50
Acrylamide*** 79-06-1	= 124 mg/kg ( Rat )	= 1148 mg/kg ( Rabbit ) = 400 mg/kg ( Rat ) = 1680 µL/kg ( Rabbit )	-
Trade secret***	= 12600 mg/kg ( Rat )	> 10 g/kg ( Rabbit )	> 570 mg/m³ ( Rat ) 1 h

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Skin corrosion/irritation** Classification based on data available for ingredients. Irritating to skin.

**Serious eye damage/eye irritation** Classification based on data available for ingredients. Causes serious eye irritation.

**Respiratory or skin sensitization** May cause sensitization by skin contact.

**Germ cell mutagenicity** Contains a known or suspected mutagen. Classification based on data available for ingredients. May cause genetic defects.

**Carcinogenicity** Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Acrylamide*** 79-06-1	A3	Group 2A	Reasonably Anticipated	X

### Legend

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 2A - Probably Carcinogenic to Humans

NTP (National Toxicology Program)

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

### Reproductive toxicity

Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. Suspected of damaging fertility or the unborn child.

### STOT - single exposure

Based on available data, the classification criteria are not met.

### STOT - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Target organ effects	Kidney, Respiratory system, Eyes, Skin, Central nervous system, Peripheral Nervous System (PNS), Reproductive system, Thyroid, Lungs.
Aspiration hazard	No information available.
Other adverse effects	No information available.
Interactive effects	No information available.

## 12. Ecological information

### Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Acrylamide*** 79-06-1	-	LC50: 103 - 115mg/L (96h, <i>Pimephales promelas</i> ) LC50: 137 - 191mg/L (96h, <i>Oncorhynchus mykiss</i> ) LC50: 74 - 150mg/L (96h, <i>Oncorhynchus mykiss</i> ) LC50: 81 - 150mg/L (96h, <i>Lepomis macrochirus</i> ) LC50: =124mg/L (96h, <i>Pimephales promelas</i> )	-	EC50: =98mg/L (48h, <i>Daphnia magna</i> )
Trade secret***	-	LC50: 51 - 57mL/L (96h, <i>Oncorhynchus mykiss</i> )	-	EC50: >500mg/L (24h, <i>Daphnia magna</i> )

Persistence and degradability No information available.

Bioaccumulation There is no data for this product.

### Component Information

Chemical name	Partition coefficient
Acrylamide*** 79-06-1	-1.24
Trade secret***	-1.76

Other adverse effects No information available.

## 13. Disposal considerations

### Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

US EPA Waste Number U007

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Acrylamide*** 79-06-1	U007	Included in waste stream: K014	-	U007

## 14. Transport information

DOT	Not regulated
TDG	Not regulated
MEX	Not regulated
IATA	Not regulated
IMDG	Not regulated

## 15. Regulatory information

International Inventories
Contact supplier for inventory compliance status

### US Federal Regulations

**SARA 313**  
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
Acrylamide*** - 79-06-1	0.1

### SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.

### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

### CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Acrylamide*** 79-06-1	5000 lb	5000 lb

### US State Regulations

#### California Proposition 65

This product contains the following Proposition 65 chemicals.:

Chemical name	California Proposition 65
Acrylamide*** - 79-06-1	Carcinogen Developmental Male Reproductive

### U.S. State Right-to-Know Regulations

US State Regulations This product does not contain any substances regulated by state right-to-know regulations

US State Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Acrylamide*** 79-06-1	X	X	X
Trade secret***	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. Other information**

NFPA	Health hazards 2	Flammability 1	Instability 0	Physical and chemical properties -
HMIS	Health hazards * 2	Flammability 1	Physical hazards 0	Personal protection X

*Chronic Hazard Star Legend*  
\* = Chronic Health Hazard

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)  
Ceiling Maximum limit value Skin designation

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications

Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

RTECS (Registry of Toxic Effects of Chemical Substances)

World Health Organization

Prepared By Bio-Rad Laboratories, Environmental Health and Safety

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Revision Note \*\*\* Indicates this information has changed since the previous revision.

**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.

End of Safety Data Sheet