

# SAFETY DATA SHEET

Cat# AUR11011, SolutionReady™ SU-5402



Date: 9/01/2022

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY

### 1.1 Product identifiers

Product Name : SolutionReady™ SU-5402  
Product Number : AUR11011  
Manufacturer : Aurora Medbiochem  
Address : 938 South Andreasen Drive, Suite E  
Escondido, CA 92029 USA

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances

### 1.3 Emergency telephone

Emergency Phone # : +1-760-738-1508  
Fax Phone # : +1-760-738-1530

## SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	EC-No.	Molecular Weight	Chemical Formula
SolutionReady™ SU-5402	215543-92-3	--	296.32	C <sub>17</sub> H <sub>16</sub> N <sub>2</sub> O <sub>3</sub>
DMSO	67-68-5	200-664-3	78.13	C <sub>2</sub> H <sub>6</sub> OS

## SECTION 3: HAZARDS IDENTIFICATION

Product/ Chemical Name	Description	Safety Information
SolutionReady™ SU-5402	10 mM solution in DMSO (500 µg in 169 µl)	See below

### **SU-5402, dihydrochloride:**

#### **Emergency Overview:**

**OSHA Hazards:** No known OSHA hazards

**GHS Classification:** Not a dangerous substance according to GHS

**GHS Label elements, including precautionary statements**

**Pictogram:** none

**Signal word:** none

**Hazard statement(s):** none

**Precautionary statement(s):** none

**HMIS Classification**

**Health hazard:** 0

**Flammability:** 0

**Physical hazards:** 0

**NFPA Rating**

**Health Hazard:** 0

**Fire:** 0

**Reactivity Hazard:** 0

**Potential Health Effects**

**Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation.

**Skin:** May be harmful if absorbed through skin. May cause skin irritation.

**Eyes:** May cause eye irritation.

**Ingestion:** May be harmful if swallowed.

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## **DMSO:**

### **Emergency Overview**

**OSHA Hazards:** Combustible Liquid, Target Organ Effect

**Target Organs:** Eyes, Skin

**GHS Classification:** Flammable liquids (Category 4)

**GHS Label elements, including precautionary statements**

**Pictogram:** none

**Signal word:** Warning

**Hazard statement(s):** H227 Combustible liquid

**Precautionary statement(s):** none

### **HMIS Classification**

**Health hazard:** 0

**Chronic Health Hazard:** \*

**Flammability:** 2

**Physical hazards:** 0

### **NFPA Rating**

**Health Hazard:** 0

**Fire:** 2

**Reactivity Hazard:** 0

### **Potential Health Effects**

**Inhalation:** May be fatal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

**Skin:** May be harmful if absorbed through skin. May cause skin irritation.

**Eyes:** May cause eye irritation.

**Ingestion:** May be harmful if swallowed

**Aggravated Medical Condition:** Avoid contact w/DMSO solutions containing toxic materials or materials with unknown toxicological properties. DMSO is readily absorbed through skin and may carry such materials into the body.

### **Other hazards**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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## **SECTION 4: FIRST AID MEASURES**

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### **4.1 Description of first-aid measures**

#### **General advice**

Show this material safety data sheet to the doctor in attendance.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration.

**In case of skin contact:** Wash off with soap and plenty of water.

**In case of eye contact:** Flush eyes with water as a precaution.

**If swallowed:** Never give anything by mouth to an unconscious person. Rinse mouth with water.

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

The most important known symptoms and effects are described in the labelling (see section 11)

**4.3 Indication of any immediate medical attention and special treatment needed** No data available.

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## **SECTION 5: FIREFIGHTING MEASURE**

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Condition of flammability: Not flammable or combustible.

### **5.1 Extinguishing media**

**Suitable extinguishing media**

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Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

## **Unsuitable extinguishing media**

For this substance/mixture no limitations of extinguishing agents are given.

## **5.2 Special hazards arising from the substance or mixture**

Hazardous decomposition products formed under fire conditions— see section 10.

## **5.3 Advice for firefighters**

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

## **5.4 Further information**

Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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**Personal precautions:** Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert.

**Environmental precautions:** Do not let product enter drains.

**Methods for cleaning up:** Sweep up and shovel. Keep in suitable, closed containers for disposal

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## **SECTION 7: HANDLING AND STORAGE**

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### **7.1 Precautions for safe handling**

#### **Advice on safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

#### **Advice on protection against fire and explosion**

Keep away from open flames, hot surfaces, and sources of ignition. precautionary measures against static discharge.

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

#### **Storage conditions**

Keep container tightly closed in a dry and well-ventilated place.

**Recommended storage temperature :** -20 °C. Protect from air and light.

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## **SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION**

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Contains no substances with occupational exposure limit values.

### **Personal protective equipment**

#### **Respiratory protection:**

Required when vapours/aerosols are generated. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Recommended Filter type: Filter type ABEK

#### **Hand protection:**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### **Eye protection:**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

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## Skin and body protection:

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Hygiene measures:** General industrial hygiene practice.

## Control of environmental exposure

Do not let product enter drains.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	SU-5402, DIHYDROCHLORIDE	DMSO
<b>Appearance:</b>	Yellow solid	Clear liquid
<b>pH:</b>	No data available	Completely miscible
<b>Water Solubility:</b>	No data available	No data available
<b>Other Solubility:</b>	DMSO (100 mM)	No data available
<b>Boiling Point (°C):</b>	No data available	189 °C (372 ° F)
<b>Melting Point (°C):</b>	No data available	16-19 °C (61-66 ° F)
<b>Flash Point (°C):</b>	No data available	87 °C (189 ° F)
<b>Ignition Temperature (°C):</b>	No data available	301 °C (574 ° F)
<b>Density:</b>	No data available	1.1 g/ml

## SECTION 10: STABILITY AND REACTIVITY

Property	SolutionReady™ SU-5402	DMSO
<b>Chemical stability</b>	Stable under recommended storage conditions	Stable under recommended storage conditions
<b>Conditions to avoid:</b>	Protect from air and light	Heat, Flames, Sparks
<b>Materials to avoid:</b>	Strong acids, strong bases, strong oxidizing agents	Acid chlorides, Phosphorus halides, Strong acids, Strong oxidizing agents, Strong reducing agents
<b>Hazardous decomposition products:</b>	Carbon oxides, nitrogen oxides, sulfur oxides	Carbon oxides, sulfur oxides

## SECTION 11: TOXICOLOGICAL INFORMATION

### SolutionReady™ SU-5402

**Acute toxicity:** no data available

**Skin corrosion/irritation:** no data available

**Serious eye damage/eye irritation:** no data available

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:** no data available

### **Carcinogenicity:**

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

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**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity:** No data available

**Teratogenicity:** no data available

**Specific target organ toxicity – single exposure (GHS):** no data available

**Specific target organ toxicity – repeated exposure (GHS):** no data available

**Aspiration hazard:** no data available

## Potential Health Effects

**Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation.

**Skin:** May be harmful if absorbed through skin. May cause skin irritation.

**Eyes:** May cause eye irritation.

**Ingestion:** May be harmful if swallowed.

**Signs and Symptoms of Exposure:** To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Synergistic effects:** no data available

**Additional information:** RTECS: not available

## DMSO:

**Acute toxicity:** LD50 Oral – rat – 14,500 mg/kg

LC50 Inhalation – rat – 4 h – 40250 ppm

LD50 Dermal – rabbit – >5,000 mg/kg

**Skin corrosion/irritation:** Skin – rabbit – no skin irritation – 4h

**Serious eye damage/eye irritation:** Eyes – rabbit – mild eye irritation

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:** Genotoxicity in vitro – mouse – lymphocyte: Cytogenetic analysis

Genotoxicity in vitro – mouse – lymphocyte: Mutation in mammalian somatic cells

Genotoxicity in vivo – rat – Intraperitoneal: Cytogenetic analysis

Genotoxicity in vivo – mouse – Intraperitoneal: DNA damage

**Carcinogenicity:** Carcinogenicity – rat – Oral ☐ Tumorigenic: equivocal tumorigenic agent by RTECS criteria. Skin and appendages: other: tumors.

Carcinogenicity – mouse – Oral ☐ Tumorigenic: equivocal tumorigenic agent by RTECS criteria. Leukemia skin and appendages: other: tumors.

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity:** Reproductive toxicity – rat – Intraperitoneal ☐ Effects on fertility: abortion

Reproductive toxicity – rat – Intraperitoneal ☐ Effects on fertility: post-implantation mortality (e.g. dead and/or resorbed implants per total number of implants)

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Reproductive toxicity – rat – Subcutaneous □ Effects on fertility: post-implantation mortality (e.g. dead and/or resorbed implants per total number of implants). Effects on fertility: litter size (e.g. # fetuses per litter; measured before birth)

Reproductive toxicity – mouse – Oral □ Effects on fertility: post-implantation mortality (e.g. reduction in number of implants per female; total number of implants per corpora lutea). Effects on embryo/fetus: Fetotoxicity (except death, e.g. stunted fetus). Specific developmental abnormalities: musculoskeletal system.

**Teratogenicity:** Developmental toxicity – mouse – Intraperitoneal: Effects on embryo/fetus: Fetotoxicity (except death, e.g. stunted fetus).

**Specific developmental abnormalities:** musculoskeletal system

**Specific target organ toxicity – single exposure (GHS):** no data available

**Specific target organ toxicity – repeated exposure (GHS):** no data available

**Aspiration hazard:** no data available

## Potential Health Effects

**Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation.

**Skin:** May be harmful if absorbed through skin. May cause skin irritation.

**Eyes:** May cause eye irritation.

**Ingestion:** May be harmful if swallowed.

**Aggravated Medical Condition:** Avoid contact w/DMSO solutions containing toxic materials or materials with unknown toxicological properties. DMSO is readily absorbed through skin and may carry such materials into the body.

**Signs and Symptoms of Exposure:** Effects due to ingestion may include: nausea, fatigue, and/or headache.

**Synergistic effects:** no data available

**Additional information:** RTECS: PV6210000

## SECTION 12: ECOLOGICAL INFORMATION

### SU-5402, DIHYDROCHLORIDE:

**Persistence and degradability:** no data available

**Toxicity:** no data available

**Bioaccumulative potential:** no data available

**Mobility in soil:** no data available

**PBT and vPvB assessment:** no data available

**Other adverse effects:** no data available

### DMSO

**Elimination information (persistence and degradability):** no data available

**Ecotoxicity effects:** Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 34,000 mg/l - 96 h; LC50 - Oncorhynchus mykiss

(rainbow trout) - 35,000 mg/l - 96 h; Toxicity to daphnia and other aquatic invertebrates.; EC50 - Daphnia pulex (Water flea) - 27,500 mg/l

Toxicity to algae EC50 - Lepomis macrochirus (Bluegill) - > 400,000 mg/l - 96 h

**Further information on ecology:** no data available

## SECTION 13: DISPOSAL CONSIDERATION

**Product:** Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

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**Contaminated packaging:** Dispose of as unused product.

## SECTION 14: TRANSPORT INFORMATION

### **SU-5402, DIHYDROCHLORIDE:**

**DOT (US):** Not dangerous goods.

**IMDG:** Not dangerous goods.

**IATA:** Not dangerous goods.

### **DMSO**

**DOT (US):** UN-Number: 1993 Class: CBL Packing group: III; Proper shipping name: Combustible liquid, n.o.s. (Dimethyl sulfoxide); Marine pollutant: No; Poison Inhalation Hazard: No

**IMDG:** Not dangerous goods

**IATA:** Not dangerous goods

## SECTION 15: REGULATORY INFORMATION

### **SU-5402, DIHYDROCHLORIDE:**

**OSHA Hazards:** Irritant

**SARA 302 Components:** SARA 302: No chemical in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components: SARA 313:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title II, Section 313.

**SARA 311/312 Hazards:** Acute Health Hazard

Massachusetts Right To Know Components: No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components:** SU-5402, DIHYDROCHLORIDE, CAS-No. 215543-92-3

**New Jersey Right To Know Components:** SU-5402, DIHYDROCHLORIDE, CAS-No. 215543-92-3

**California Prop. 65 Components:** This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### **DMSO**

**OSHA Hazards:** Combustible Liquid, Target Organ Effect

**DSL Status:** All components of this product are on the Canadian DSL list.

**SARA 302 Components: SARA 302:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components: SARA 313:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards: Fire Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components:** No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components ;** Dimethyl sulfoxide CAS-No. 67-68-5

**New Jersey Right To Know Components:** Dimethyl sulfoxide CAS-No. 67-68-5

**California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

## EU regulations

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Component	Risk Phrases	Safety Phrases
SU-5402, DIHYDROCHLORIDE	--	--
DMSO	R10, R36/37/38	S24/25, S36/37/39, S45

## SECTION 16: OTHER INFORMATION

### DISCLAIMER:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product regarding appropriate safety precautions. It does not represent any guarantee of the properties of the product. Aurora Medbiochem Co. shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.