



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

August 7, 2015

Airgas USA, LLC  
c/o  
Cheryl Wagner  
Wagner Regulatory Associates, Inc  
PO Box 640  
7217 Lancaster Pike, Suite A  
Hockessin, Delaware 19707

Subject: Label Amendment – Revising the respirator requirements, precautionary language, and deletion of uses (warehouse, cold storage room or fumigation chamber; truck, trailer, railcar or other transport vehicle treatment) Product Name: Airgas Sulfur Dioxide  
EPA Registration Number: 89867-2  
Application Date: March 19, 2015; Resubmission: August 7, 2015  
Decision Number: 502688

Dear Ms. Wagner

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

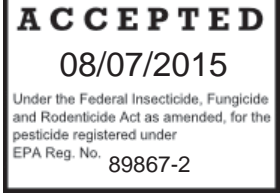
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Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Tamue L. Gibson by phone at (703) 305-9096, or via email at [gibson.tamue@epa.gov](mailto:gibson.tamue@epa.gov).



Shaja B. Joyner, Product Manager 20  
Fungicide-Herbicide Branch  
Registration Division 7505P

Enclosure



[Application Manual Label]

**RESTRICTED USE PESTICIDE**  
DUE TO CORROSIVE EFFECTS DURING INHALATION AND TO EYES AND SKIN  
For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator’s Certifications.

***Airgas Sulfur Dioxide***

**Fumigant to treat barrels and corks used in wine production**

Sulfur Dioxide  
UN1079

CAS No. 7446-09-5

SO<sub>2</sub>

Inhalation Hazard

This product is accompanied by an application manual. Read and understand the entire labeling (label and application manual) before using this product. Contact Airgas USA, LLC to obtain a replacement copy of the application manual.

**ACTIVE INGREDIENT:**

Sulfur Dioxide.....99.9%

**OTHER INGREDIENTS:**.....0.1%

**TOTAL:**.....100.0%

This product contains 12.0 lbs of SO<sub>2</sub> per gallon.

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**

**PELIGRO**



**POISON**

**Harmful if swallowed. Do not swallow or inhale**

**Si usted no entiende la etiqueta, busque a alguien para que se la explique en detalle.  
(If you do not understand this label, find someone to explain it to you in detail.)**

**FIRST AID**

**IF INHALED:**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration. Trained personnel should administer oxygen as soon as possible.
- Seek medical attention immediately.
- Call a poison control center or doctor for further treatment advice.

**IF ON SKIN OR CLOTHING:**

- Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove contaminated clothing while in shower to ensure irrigation of all contaminated skin.
- DO NOT apply any chemicals or ointments/lotions to damaged skin.
- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

**IF IN EYES:**

- Check for and remove any contact lenses.
- Hold eye open and rinse slowly and gently with water for at least 15 minutes. Completely flush all eye and lid tissue.
- DO NOT apply any chemical or ointment to the eyes.
- Seek medical attention immediately. Call a poison control center or doctor for treatment advice.

**IF SWALLOWED:**

(LIQUID SULFUR DIOXIDE)

- Immediately call a poison control center or doctor for treatment advice.
- Do not induce vomiting unless told by a poison control center or doctor.
- Have person sip a glass of water if able to swallow.
- Do not give anything by mouth to an unconscious person.

**NOTES:** Have the product container or label with you when calling a poison control center or doctor or going for treatment. Probable mucosal damage may contraindicate the use of gastric lavage.

**EMERGENCY NUMBERS:** Airgas at (866) 734-3438 (transportation and spills)  
(800) 222-1222 Poison Control Center (human health)  
(888) 426-4435 ASPCA (animal health)

**EPA Reg No. 89867-2**

**EPA Est. No. 9768-UT-1**

**Net Contents:** 25 lbs., 150 lbs.

**Manufactured for:** Airgas USA, LLC, 259 N. Radnor-Chester Road, Radnor, PA 19087

## **PRECAUTIONARY STATEMENTS**

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### **HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

#### **DANGER - PRESSURIZED LIQUID GAS – HAZARDOUS VAPOR AND LIQUID – LIQUID CAUSES BURNS OF SKIN AND EYES**

Fatal if inhaled in high concentration. Do not breathe vapor. Persons with a history of respiratory problems should avoid exposure to the product. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Causes skin burns. Do not get in eyes, on skin, or on clothing.

Sulfur dioxide is an eye, nose and throat irritant even at low levels. If tearing or upper respiratory tract irritation symptoms occur, leave fumigation area immediately. Medical assessments of applicators and other persons who will be regularly exposed to sulfur dioxide should be conducted prior to employment and at 1-2 year intervals.

### **PHYSICAL AND CHEMICAL HAZARDS**

Sulfur dioxide is a non-flammable, whitish colored gas of pungent odor. Corrosive in presence of water. Do not spray water on any leaking container. Water will make product corrosive and may increase venting. Sulfur dioxide can be sensed by taste and odor at low level concentrations.

### **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Applicators and other handlers must wear:

- Chemical-resistant coveralls (examples: Tychem SL or Saranex) over long-sleeved shirt and long pants, or
- Chemical-resistant apron and coveralls over long-sleeved shirt and long pants
- Chemical-resistant footwear plus socks
- Sulfur dioxide-resistant gloves (examples: butyl rubber or neoprene), and
- NIOSH approved full face respirator with acid gas or combination organic vapor/acid gas cartridge

When making gas applications or checking connections, wear a NIOSH-approved full face respirator with an acid gas or combination organic vapor/acid gas removing cartridge, in addition to sulfur dioxide impervious gloves (examples: butyl rubber or neoprene), chemical-resistant boots and either chemical-resistant apron and coveralls over long-sleeved shirt and long pants, or chemical-resistant coveralls. Before moving or handling this product, handlers must be trained how to appropriately use respirators which conform to OSHA requirements (described in 29 CFR Part 1910.134) and how to appropriately handle and use sulfur dioxide.

If a sulfur dioxide concentration of 2 ppm is exceeded at any time, all persons working in the fumigation area must wear a NIOSH approved full face respirator with an acid gas or combination organic vapor/acid gas cartridge. If sulfur dioxide concentrations of 10 ppm are exceeded, or when concentrations are unknown, use either a supplied-air respirator (SAR) with NIOSH approval number prefix TC-19C, OR a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F or combination air supplied/ SCBA respirator must be used by all persons working in the fumigation area.

Respirator requirements: When a respirator is required for use with this product, the certified applicator supervising the fumigation must ensure that:

- Respirators are fit tested and fit checked using a program that conforms to OSHA's requirements described in 29 CFR Part 1910.134.
- Respirator users are trained using a program that conforms with OSHA's requirements described in 29 CFR Part 1910.134.
- Respirator users have been examined by a qualified medical practitioner to ensure the physical ability to safely wear the style of respirator to be worn.
- Respirators are maintained according to a program that conforms to OSHA's requirements described in 29 CFR Part 1910.134.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

### **MONITORING AIR CONCENTRATION LEVELS**

The air concentration level must be measured by a continuous gas monitor or a direct reading sulfur dioxide detection device, such as a Draeger handpump, Sensidyne or Kitagawa syringe sampler. If respirator requirements are triggered as specified in the 'Respirator Requirements' section of this labeling, respiratory protection must continue for persons in the treatment area until two consecutive air concentration samples taken at least 15 minutes apart indicate sulfur dioxide air concentration levels of 2 ppm or less. If either of the two samples taken indicate sulfur dioxide air concentration level greater than 2 ppm, appropriate respiratory protection must continue until two additional air concentration samples taken at least 15 minutes apart indicate that sulfur dioxide air concentration levels are 2 ppm or less.

Recordkeeping:

Records must be kept of all sulfur dioxide air monitoring.

### **USER SAFETY RECOMMENDATIONS:**

User should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## **ENVIRONMENTAL HAZARDS**

This product may be toxic to plants. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

## **DIRECTIONS FOR USE RESTRICTED USE PESTICIDE**

**It is a violation of Federal law to use this product in a manner inconsistent with its labeling.**

**FOR USE IN CLEANING BARRELS USED IN WINE PRODUCTION** – Fumigate barrels to minimize effects of non-public health fungi and /or bacteria prior to the introduction of grape juice for wine production. Do not apply in a manner that allows drift onto areas occupied by unprotected humans or animals. Do not release fumigant into occupied work area.

For wooden barrels used for wine aging:

1. Inside of barrels should be rinsed by a solvent selected by the winery (e.g. soap, water, etc.) and air dried.
2. Gas barrels – Using gas cylinder only (no education tube) and a barrel gassing unit with a pressure gauge. Pressure in the cylinder should be between 18-45 psi. Begin treatment by removing bung from barrel, insert SO<sub>2</sub> probe into the barrel and open the valve for 2-3 seconds. Now close the valve, extract the SO<sub>2</sub> probe and replace bung. Insert the SO<sub>2</sub> probe into the next barrel following the same procedure until all barrels are treated OR the pressure in the cylinder falls below 18 psi. If the cylinder pressure falls below 18 psi, change to another gas cylinder and continue gassing process as described.

**NOTE TO USER:** If a liquid SO<sub>2</sub> cylinder (with education tube) is used, the barrel will be damaged.



The SO<sub>2</sub> cylinders have fusible plugs (heat sensitive plugs) rated at 165°F. Do not expose cylinders to a heat source, including hot water. Doing so may rapidly release all of the SO<sub>2</sub> from the tank. If this happens, the work area should be evacuated until the air in the work area is shown to contain 2 ppm or less SO<sub>2</sub> or proper breathing apparatus is used.

After treatment, set cleaned barrels aside for 1-30 days. If barrels were gassed more than 30 days previously, they need to be re-gassed. When the barrels are being gassed, Draeger tube, or similar device readings must occasionally be made during gassing process to assure that the SO<sub>2</sub> concentration in the gassing or work area does not exceed 2 ppm. If the work area readings are above 2 ppm, workers in the area must use a NIOSH approved full face respirator with an acid gas or combination organic vapor/acid gas removing cartridge with sulfur dioxide imperious gloves, boots, coveralls, over long-sleeved shirt and long pants or leave the work area until the atmosphere is shown to be at or below 2 ppm by an SO<sub>2</sub> detection device.

### **FUMIGATING CORKS USED IN WINE PRODUCTION**

For corks used in wine production: Fumigate the cork to reduce effects of non-public health fungal or bacterial growth prior to corking bottles to minimize contamination of the wine in the bottle.

To fumigate cork bags, use a gas cylinder only (no education tube) and cork bag gassing unit equipped with or without a vacuum sealer. The gas cylinder and pressure gauge are provided by a designated distributor. Pressure in the cylinder should be between 18-45 psi. Begin treatment by placing a plastic bag into the cork loading equipment, fill the bag with corks, begin the heat sealing process, introduce SO<sub>2</sub> gas for 2-3 seconds, and complete the heat sealing process. If the cylinder pressure falls below 18 psi, change to another gas cylinder and continue the gassing process.

Fumigated corks may be used the day following SO<sub>2</sub> gassing. Any bags thus treated must be labeled as “SO<sub>2</sub> treated”.

### **PLACARDING OF FUMIGATED AREAS**

The certified applicator in charge of the fumigation (or someone under his/her supervision) must placard all entrances to the fumigated area with signs bearing the following in English and Spanish:

- Skull and crossbones symbol
- DANGER / PELIGRO
- Area under fumigation, DO NOT ENTER / NO ENTRE
- Sulfur Dioxide Fumigant in use
- The date and time of the fumigation, and
- Name, address and telephone number of the certified applicator in charge of the fumigation.

Do not allow entry by unprotected persons into the fumigated area until the signs are removed. Such signs must only be removed when the air concentration level of sulfur



dioxide is 2 ppm or less. Signs must remain legible during entire posting period. The warning signs at entrances to fumigated structures may only be removed by the certified applicator in charge of the fumigation (or someone under his/her supervision).

## **STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal.

**Pesticide Storage:** Store in a locked, dry, level, well-ventilated area at normal room temperature. Cylinder temperature should not exceed 52°C (125°F). Post as a pesticide storage area. Do not store near flammable material, near the inlet of a ventilating or air conditioning unit, near any source of direct heat or in a subsurface location.

Store cylinders upright, secured to a rack wall to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, or similar devices to unload cylinders. Transport cylinders using a hand truck, fork truck, or other device to which the cylinder can be firmly secured.

Do not remove valve cap and safety outlet cap until immediately before use. Replace valve cap and safety outlet cap when cylinder is not in use.

**Pesticide Disposal:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA regional Office for guidance.

**Container Disposal:** Refillable container. Refill with sulfur dioxide only. Do not reuse this container for any other purpose. When cylinder is empty, close valve before returning to supplier. Only the registrant is authorized to refill cylinders. Do not use cylinders for any other purpose. Close cylinder valve by turning clockwise until hand tight. Disconnect lines. Return empty and/or partial cylinders only after consulting Airgas USA, LLC for proper shipping instructions.

## **Spill and Leak Procedures**

Evacuate immediate area of spill or leak. Use a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F or combination air supplied/SCBA respirator for entry into affected area to correct problem. Move leaking or damaged cylinders outdoors or to an isolated location, observing strict safety precautions. Work upwind if possible. Allow spill to evaporate. Do not permit entry into spill area by unprotected persons until concentration of sulfur dioxide is determined to be less than 2.0 ppm as determined by use of a direct detection device.

### **Warranty Statement**

Airgas provides the information contained herein in good faith but makes no representation or warranty as to its comprehensiveness or accuracy. This information is intended only as a guide to the appropriate equipment, systems, installations or precautionary handling of the Product by a properly trained person. The information provided is supplied free of charge and is based on data provided by the customer and technical data that Airgas believes is reliable. This information is intended for use by persons having technical skill and at their own discretion and risk. As information provided by Airgas may be used in different conditions or in combination with other information beyond Airgas's control, customer is responsible for determining whether the information included is appropriate for customer's use and customer assumes full responsibility for conclusions it derives from this information. Customer is responsible for seeking expert advice.

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