



Hazard Ratings
4 = Extreme
3 = High
2 = Moderate
1 = Slight
0 = Insignificant

Material Safety Data Sheet

(Essentially Similar to U.S. Department of Labor Suggested
Form For Hazard Communication Compliance)

I. Product Identification

Product Type - ALL-STATE CHEMICAL AID

Manufacturer - THE ESAB GROUP, INC.

Website: www.esabna.com

Telephone No. - 1-717-637-8911

1-800-933-7070

Address - 801 Wilson Avenue
Hanover, PA 17331

Emergency No. - 1-717-637-8911
(CHEMTREC) 1-800-424-9300

Product Description: An aerosol spray applied to metal surfaces for preventing spatter adhesion.

NOMINAL CHEMICAL COMPOSITION (%)

All-State Product Trade Name

All-Guard[®] Anti-Spatter Spray ① (Stock # 69300502)

Contains no hazardous components.

Propellant: Nitrogen gas

① See Note in Section VI

THE ESAB GROUP requests the users of these products to study this Material Safety Data Sheet (MSDS) and the product labels and become fully aware of the product hazards and safety information. To promote the safe use of these products a user should (1) notify and train its employees, agents and contractors concerning the information on this MSDS and any product hazards and safety information, (2) furnish this same information to each of its customers for these products, and (3) request that such customers notify and train their employees and customers, for these products, of the same product hazards and safety information.

II. Hazardous Ingredients

IMPORTANT: This section covers the materials from which this product is manufactured. The fumes and gases produced during normal use of these products are covered in Section V. The term **HAZARDOUS** should be interpreted as a term required and defined by Laws, Statutes, or Regulations, and does not necessarily imply the existence of any hazard when the products are used as directed by **THE ESAB GROUP**.

Material	(CAS No.)	SARA	ACGIH TLV		TWA (ppm)	OSHA - PEL	STEL (ppm)
			TWA (ppm)	STEL (ppm)			
Nitrogen	(7727-37-9)		(D)				--

NOTE: In the ingredients table, an asterisk (*) after the CAS number indicates a toxic chemical subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (SARA) and 40 CFR Part 372.

(D) Some gases (nitrogen for example) and vapors in high concentrations in air act as simple asphyxiants. A simple asphyxiant is not assigned a TLV because the limiting factor is the available oxygen. The minimum requirement of 19.5% oxygen at sea level provides adequate oxygen for most work assignments.

In the above table, (C) indicates a "Ceiling Limit"

This section covers some of the additional hazardous ingredients that may be generated by the welding process. See Section V.

	<u>ACGIH TLV</u>	<u>OSHA PEL</u>
Ozone	0.1 ppm (ceiling)	0.1 ppm
Nitric oxide	25 ppm	25 ppm
Nitrogen dioxide	3, 5ppm (STEL)	5 ppm (ceiling)
Welding fumes	5 mg/m ³	---
Carbon monoxide	25 ppm	50 ppm
Hydrogen Fluoride	0.5 ppm, 2 (ceiling)	3 ppm
Phosgene gas	0.1 ppm	0.1 ppm

III. Physical Data

Vapor Pressure PSIG @ 70°F (Aerosols): NA

Solubility in Water: Complete

Specific Gravity (H₂O = 1): 1.00

Vapor Density (Air = 1): 0.62

Water Reactive: None.

Odor and Appearance: Odorless, dark orange liquid film.

IV. Fire & Explosion Hazard

Flammable/Explosive: as per USA Flame Projection Test (Aerosols): NO (X) YES ()

Auto-Ignition Temperature: Not Established

Flammability Limits in Air % by Volume:

LEL: Not Established

UEL: Not Established

Extinguishing Media: Aerosol is non-flammable. Use media compatible with surrounding fire.

Special Fire Fighting Procedures: Wear self-contained respiratory apparatus.

Unusual Fire and Explosion Hazards: Do not expose aerosols to temperatures above 130°F or the container may explode.

V. Reactivity Data

Stability: Stable (X) Unstable () Hazardous polymerization will not occur.

Conditions to Avoid: Heat, open flames.

Incompatibility (Materials to Avoid): Acids. Do not mix with liquids other than water.

Hazardous Decomposition Products: Carbon Dioxide (CO₂), Carbon Monoxide (CO). During Arc Welding fumes and gases cannot be classified simply. The composition and quantity of both are dependent upon the material being worked, the process, procedures, and consumables used. Other conditions which also influence the composition and quantity of the fumes and gases to which workers may be exposed include: coatings on the material being worked (such as films, paint, plating or galvanizing), the number of welding operations and the volume of the work area, the quality and amount of ventilation, the position of the worker's head with respect to the fume plume, as well as the presence of contaminants in the atmosphere (such as chlorinated hydrocarbon vapors from cleaning or painting activities). When the materials are consumed, the fume and gas decomposition products generated are different in percent and form from the ingredients listed in Section II. Decomposition products of normal operation include those originating from the volatilization, reaction, or oxidation of the ingredients, plus those from the material being worked and the coatings etc. noted above.

Reasonably expected decomposition products from normal use of this product includes carbon monoxide, carbon dioxide, and when welding occurs, ozone and nitrogen oxides along with emissions from the base plate and the welding consumable (refer to "Characterization of Arc Welding Fume" available from the American Welding Society). The only way to determine the true identity of the decomposition products is by sampling and analysis. The composition and quantity of the fumes and gases to which a worker may be overexposed can be determined from a sample obtained from inside the welder's helmet, if worn, or in the workers breathing zone. See ANSI/AWS F1.1 "Method for Sampling Airborne Particles Generated by Welding and Allied Processes," available from the American Welding Society. MONITOR THE FUMES AND GASES IN THE WORKERS' BREATHING ZONE.

VI. Physical and Health Hazard Data

Introduction: Electric arc working creates health and physical hazards. Fumes and gases can be dangerous to your health. Fumes and gases containing fluoride burn eyes and skin on contact and can be fatal if swallowed. Electric shock can kill you. Arc rays can injure eyes and burn skin. Heat rays (infrared radiation) from flame or hot metal can injure eyes. Noise can damage hearing. An additional detailed description of the Health and Physical Hazards and their consequences may be found in ESAB's publications F52-529 "Precautions and Safe Practices for Electric Welding and Cutting" and F2035 "Precautions and Safe Practices for Gas Welding, Cutting and Heating." You may obtain copies from your local supplier or by writing to the address in Section I.

Route of overexposure: The primary route of entry of the decomposition products is by inhalation. Eye contact, and ingestion are possible. When these products are used as recommended by **THE ESAB GROUP**, and ventilation maintains exposure to the decomposition products below the limits recommended in this section, overexposure is unlikely.

Effects of acute (short-term) overexposure to the welding gases, fumes, and dusts may include severe irritation, and possibly burns of the eyes, lungs, nose, and throat. Some toxic gases associated with welding may cause pulmonary edema, asphyxiation, and death. Acute overexposure may include signs and symptoms such as watery eyes, nose and throat irritation, headache, dizziness, difficulty in breathing, frequent coughing, or chest pain.

Acute effects of exposure to this product are:

Inhalation: Very slight irritation

Eye Contact: Slight irritations.

Skin Contact: None known

Ingestion: Very slight irritation.

Pre-existing Medical Conditions Aggravated by Overexposure: Individuals with allergies or impaired respiratory function may have symptoms worsened by exposure to welding fumes; however, such reaction cannot be predicted due to the variation in composition and quantity of the decomposition products.

Effects of chronic (long-term) overexposure to this product generally aggravates existing medical conditions. Chronic overexposure to air contaminants may lead to their accumulation in the lungs, a condition which may be seen as dense areas on chest X-rays. The severity of the change is proportional to the length of the exposure. The changes seen are not necessarily associated with symptoms or signs of reduced lung function or disease. In addition, the changes on X-rays may be caused by non-work factors such as smoking, etc. Long term exposure to welding and allied processes gases, dusts and fumes may contribute to pulmonary irritation or pneumoconiosis. Welding fumes (not otherwise specified) are possibly carcinogenic to humans.

Exposure limits for the ingredients are listed in Section II. The ACGIH TLV and the 1989 OSHA TWA for welding fume is 5 mg/m³. TLV-TWAs should be used as a guide in the control of health hazards and not as fine lines between safe and excessive concentrations. As noted in Section V, the welding fume is a mixture of many components. Therefore a statutory computation of the *equivalent exposure* is required. When these products are used as recommended by **THE ESAB GROUP**, and the preventive measures taught in this MSDS are followed, overexposure to hazardous substances will not occur.

Emergency First Aid Measures: In case of emergency, call for medical aid. Employ first aid technique recommended by the Red Cross. **IF BREATHING IS DIFFICULT**, give oxygen and call for a physician. **FOR ELECTRIC SHOCK**, disconnect and turn off the power. Use a nonconducting material to pull victim away from contact with live parts or wires. If not breathing, begin artificial respiration, preferably mouth-to-mouth. If no detectable pulse, begin Cardio Pulmonary Resuscitation (CPR). Immediately call a physician. **FOR ARC BURN**, apply cold, clean compresses and call a physician.

Eye Contact: Flush with water for at least fifteen minutes to remove all residue. If irritation persists, obtain medical assistance.

Skin Contact: Promptly flush with soap and water, rinsing till clean. Get medical attention for irritation or burns.

Inhalation: Remove to fresh air. If breathing has stopped, perform artificial respiration and obtain medical assistance immediately!

Ingestion: Of this product, an unlikely route of entry. Drink a large volume water. If irritation persists, call a physician. For ingestion of welding fumes Call a physician or your Poison Control Center IMMEDIATELY! Advise of the composition of the welding electrode/consumable (see the MSDS for the welding electrode/consumable).

Carcinogenic Assessment (NTP Annual Report, IARC Monographs, Other): None of the ingredients in this product are listed.

Welding Fumes (not otherwise classified)—IARC-2B: Possibly carcinogenic to humans.

ⓘ WARNING: This product, when used for welding or cutting, produces fumes or gases which contain chemicals known to the State of California to cause birth defects and, in some cases, cancer. (California Health & Safety Code §25249.5 et seq.)

VII. Precautions for Safe Handling and Use/Applicable Control Measures

Storage Precaution: No unusual methods are required. Keep product contained and retain all warning and identity labels. Keep product out of reach of children.

Handling Precaution: Avoid contaminating food with this product. Read and understand the manufacturer's instructions and the precautionary label on this product. Before welding on the sprayed surface, **See** and **Read** American National Standard Z-49.1, "Safety in Welding and Cutting," published by the American Welding Society, P. O. Box 351040, Miami, FL 33135 and OSHA Publication 2206 (29 C.F.R. 1910), U.S. Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954 for more detail on many of the following:

For This Product:

Respiratory Protection is not required.

Eye Protection: Safety glasses with side shields or chemical safety goggles.

Ventilation: Normal air circulation.

Protective Clothing and Equipment: None required.

Hygienic Work Practices: Wash thoroughly before handling food. Avoid contact with eyes and skin. Avoid ingestion and inhalation.

Steps to be taken if material is spilled or released: Flush to sewer with water. Landfill according to local, state, and federal regulations.

Waste Disposal Methods: Aerosol cans, when vented to atmospheric pressure through normal use, pose no disposal problem.

Precautions to be Taken in Handling and Storage: Avoid breathing vapors. Do not puncture or incinerate container. Do not store at temperatures above 130°F.

During Welding:

Exposure to Fumes and Gases: Keep your head out of the fumes. Do not breathe the fumes. Use enough ventilation to keep the exposure within legal limits. In the worker's breathing zone and the general area, the fumes and gases must be kept below the TLVs and the *equivalent exposure* must compute to less than one. Keep exposure as low as possible.

Confined Spaces: Test confined space atmosphere for (1) suitable oxygen content, (2) no combustibles or reactives, (3) no toxins. Continuously ventilate and monitor confined spaces to ensure that fumes and gases do not exceed safe exposure limits.

Special Precaution: Use industrial hygiene monitoring equipment to ensure that exposure does not exceed threshold limit values.

Eye Protection: Wear helmet or use face shield with filter lens according to ANSI Z87.1. Provide protective screens and flash goggles, if necessary, to shield others. Wear safety glasses with UV protective side shields or goggles. Wear contact lenses in

combination with safety eyewear, except where the contact lenses create a likelihood of injury from intense heat, highly particulate atmosphere, or where their use is prohibited.

Protective Clothing: Wear head, hand and body protection that help to prevent injury from radiation, sparks and electrical shock. Wear flame resistant ear plugs to keep sparks out of ears. See ANSI Z-49.1.

Avoid Fire and Explosion: Remove any combustible material from the work area. If relocation is not possible, protect with a cover of fire-resistant material. Sparks can travel horizontally throughout an area within a 10 meter radius.

Protect Against Noise: Reduce the intensity of the sound; a TLV for noise is 85 dBA for an eight hour duration. Wear approved ear plugs or ear muffs.

Protect Against Electric Shock: Do not touch live electrical parts. Wear dry, insulating gloves (in good condition) and clothing. Insulate yourself from the workpiece and ground by wearing rubber soled shoes and standing on dry insulating mat or platform. Do not dip the electrode holder (gun) in water to cool it; do not lay it on a conductive surfaces or the work surface.

Heart Pacemakers: Warn wearers of heart pacemakers or other electronic equipment vital to life that the welding operation may impede the function of the device. Consult a physician and the manufacturer of the device.

The opinions expressed in this MSDS are those of qualified experts within **THE ESAB GROUP**. We believe that the information contained herein is current as of the date of this MSDS. Since the use of this information and these opinions and the conditions of use of these products are not within the control of **THE ESAB GROUP**, it is the user's obligation to determine the conditions of safe use of these products.