SAFETY DATA SHEET **GHS** Classification in accordance with 29 CFR 1910 (OSHA HCS) < Jun. 30, 2025> USA

1 – IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifiers:

Product Name: **AR Stripper**
Product Code: C495, C493, C494, C494-3, C492. Supplied in 3 Oz.(85g) and 1 Oz.(28g) plastic packers (bottles) only.

1.2 Relevant identified uses of the Substance or mixture:
Identified uses: Antireflection coating stripper for eyeglass lenses (not for contact lenses).
Unprofessional use is not recommended.

1.3 Details of the Supplier of the Safety Data Sheet:
Suppliers: Phantom Research Laboratories, Inc.
Address: 1957 Friendship Drive, Suite D., El Cajon, CA 92020 - USA
Telephone: +1-619-449-7754
Fax: +1-619-449-7711
Email: info@phantomresearch.com Contact Name: Terry Chika, tc@phantomresearch.com
Website: www.phantomresearch.com

1.4 Emergency Telephone: +1-619-750-5023
Association/Organization: Phantom Research Labs., Inc.
Other Emergency Telephone Numbers: N/A

2 – HAZARDS INDENTIFICATION

2.1 Classification of the substance or mixture
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):

Acute Tox. 3	H301	Toxic if swallowed.
Skin Corr. 1B	H314	Causes severe skin burns and eye damage.

2.2 GHS Label elements

Hazard pictogram: GHS06 Skull and Crossbones, GHS05: Corrosion

Signal Word: Danger

Hazardous Statements:

Acute Tox. 3	H301	Toxic if swallowed.
Skin Corr. 1B	H314	Causes severe skin burns and eye damage.

Precautionary Statements:

P260	Do not breath dust/ fume/ gas/ mist/ vapors/ spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/ eye protection/ face protection.
P301 + P310 + P330 + P331	IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. Rinse mouth.

P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
P405	Store locked up.
P501	Dispose of contents/ accordance with local/regional/national/international regulation

2.3 Others hazards
None

3 – COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
3.2 Mixture
Mixture of the Following Substances:

Substance name	CAS No.	Content %	Classification in accordance with 29 CFR 1910 (OSHA HCS)
Ammonium Bifluoride	1341-49-7	<90	H301, H314

Other substances with occupational exposure limits: none

4 – FIRST AID MEASURES

4.1 Description of first aid measures
As a general rule, in case of doubt or if symptoms persist - Always call a doctor. NEVER induce swallowing in an unconscious person.
In the event of Exposure by Inhalation: If dust is inhaled, immediately call POISON CENTER or doctor/physician. Move to victim to fresh air.
In the event of Splashes or Contact with Eyes: Flush exposed area well for at several minutes. Immediately call POISON CENTER or doctor/physician.
In the event of Splashes or Contact with Skin: Flush exposed area well for several minutes with water. Immediately call POISON CENTER or doctor/physician.
In the event of Swallowing: Do not induce vomiting. Rinse mouth with water. Immediately call POISON CENTER or doctor/physician.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11

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

5 – FIRE FIGHTING MEASURES

5.1 Extinguishing media
Water spray, carbon dioxide, dry chemical, alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture
May decompose to produce carbon oxides, nitrogen oxides, and hydrogen Fluoride.

5.3 Special protective equipment for fire-fighters
Wear self-contained breathing apparatus for firefighters.

6 – ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid breathing dust and vapors. Work in well ventilated area. Consult the safety measures listed under Sections 7 and 8.

6.2 Environmental precautions
Keep away from drain-surface and ground water. Dispose of waste recovered in accordance with applicable regulations (See Section 13).

6.3 Methods and material for containment and cleaning up
Sweep up spills into waste container without creating dust. Place in a closed container for proper waste disposal (see section 13) followed by washing with soap and plenty of water

6.4 Reference to other sections
See section 7, 8, and 13.

7 – HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid, inhalation of dust/ vapor/ mist, contact with skin, and eyes. Use only as instructed.

7.2 Conditions for safe storage, including any incompatibilities
Store at room temperature. Keep container sealed when not use.

7.3 Specific use(s)
Refer to section 1.2. Refer to the instructions on the label of the container.

8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
Exposure Limit Values:

Component	CAS-No.	Value	Control parameters	Basis
Ammonium bifuoride	1341-49-7	TWA	2.5000000 mg/m^3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants

8.2 Exposure control
Hand Protection: Wear suitable impervious gloves, such disposable latex or Nitrle..
Types of Gloves Recommended: Latex or Nitrile.
Eye and Face Protection: Wear protective safety glasses.

Skin Protection: Body-covering clothing recommended.
Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls.
Work in well ventilated area. Local exhaust ventilation is recommended. Mechanical is acceptable.

9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance:	White deliquescent flakes
b) Odor:	Odorless
c) Odor Threshold:	No data available
d) pH:	No data available
e) Melting Point/ Freezing Point	No data available
Melting Point/Range:	Undetermined
f) Initial Boiling Point & Boiling Range:	Undetermined
g) Flash Point:	Undetermined
h) Evaporation Rate:	No data available
i) Flammability (solid, gas):	No data available
j) Upper/lower flammability or explosive limits	
Upper Explosion Limit:	No data available
Lower Explosion Limit:	No data available
k) Vapor Pressure:	No data available
l) Vapor Density:	No data available
m) Relative Density:	No data available
n) Water Solubility:	Soluble
o) Partition Coefficient: n-octanol/water:	No data available
p) Auto-ignition Temperature:	No data available
q) Decomposition Temperature:	No data available
r) Viscosity:	No data available
s) Explosive Properties:	No data available
t) Oxidizing Properties:	No data available

9.2 Other Information
Not available

10 – STABILITY AND REACTIVITY

The preparation is stable at the handling and storage conditions recommended per Section 7 of the safety data sheet.
10.1 Reactivity
No data available

10.2 Chemical stability
Stable under normal operating conditions.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
No data available

10.5 Incompatible materials
Strong oxidizing agents, strong acids, and strong bases.

10.6 Hazardous decomposition products
May produce oxides of Hydrogen Fluoride, and Nitrogen Oxides.

11 – TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Oral Toxicity: 100.1 mg/kg
Acute Inhalation Toxicity: No data available
Acute Dermal Toxicity: No data available
Route of Exposure: Inhalation, ingestion, skin, eye contact
Health Hazard Acute and Chronic: No data available
Skin Corrosion/Irritation: Causes skin burns
Serious eye Damage/Eye Irritation: Causes serious eye damage
Respiratory or Skin Sensitization: No data available
Germ Cell Mutagenicity: No data available
Carcinogenicity: Not classifiable as to its carcinogenicity to humans
Reproductive toxicity: No data available
Specific Target Organ Toxicity - Single Exposure: No data available
Specific Target Organ Toxicity - Repeated Exposure: No data available
Aspiration Hazard: No data available

11.2 The toxicological properties have not been fully investigated.

12 – ECOLOGICAL INFORMATION

12.1 Toxicity
Aquatic Toxicity and Eco Toxicity:
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility
No data available

12.5 Results of PBT and vPvB assessment
No data available

12.6 Endocrine disrupting properties
No data available

12.7 Other adverse effects
No data available

13 – DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: Dispose of in accordance with all applicable local and national regulations.

Packaging Disposal: Dispose of in accordance with all applicable local and national regulations.

14 – TRANSPORT INFORMATION

US DOT:
- UN Number: UN1727
- UN Proper Shipping Name: Ammonium Bifluoride
- Transport Hazard Class(es): 8
- Packaging Group: II
- Special Precautions for Use: Toxic, Corrosive
- Reportable Quantity (RQ): 100 lbs

Land Transport ADR/RID:
- UN Number: UN1727
- UN Proper Shipping Name: Ammonium Bifluoride
- Transport Hazard Class(es): 8
- Packaging Group: II
- Special Precautions for Use: Toxic, Corrosive
- Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

Sea Transport (IMDG Code):
- UN Number: UN1727
- UN Proper Shipping Name: Ammonium Bifluoride
- Transport Hazard Class(es): 8
- Packaging Group: II
- Special Precautions for Use: Toxic, Corrosive
- Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

Air Transport (IATA/ ICAO) :
- UN Number: UN1727
- UN Proper Shipping Name: Ammonium Bifluoride
- Transport Hazard Class(es): 8
- Packaging Group: II
- Special Precautions for Use: Toxic, Corrosive
- Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

15 – REGULATORY INFORMATION

This safety data sheet complies with the GHS Classification in accordance with 29 CFR 1910 (OSHA HCS).

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
No data available

15.2 Chemical Safety Assessment
No data available

16 – OTHER INFORMATION

Since the user working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations. The product must not be used for any purposes other

than those specified under heading 1 without first obtaining written handling instructions. It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations. The information given on this safety data sheet must be regarded as a description of the safety requirements in relation to our product and not a guarantee of its properties.

Abbreviations and acronyms
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
PBT - Persistent Bioaccumulative and Toxic
CAS - Chemical Abstracts Service
CFR – Code of Federal Regulations
DOT - Department of Transportation
GHS – Global Harmonized System
IATA - International Air Transport Association
ICAO - International Civil Aviation Organization
IMDG - International Maritime Dangerous Goods
LC50 - Lethal Concentration, 50%
LD50 - Median Lethal Dose
OSHA HCS - Occupational Safety and Health Administration Hazard Communication standard (USA)
PBT - Persistent Bioaccumulative and Toxic substance
SDS - Safety Data Sheet
UN - United Nations
vPvB - Very Persistent and Very Bioaccumulative