



## Safety Data Sheet

Prepared in Accordance with HCS 29  
C.F.R. 1910.1200

### 1. Identification of the Substance/Mixture and the Company/Undertaking

- |  |  |                         |            |
|--|--|-------------------------|------------|
| <b>1.1 Product Identifier</b>  | 8872A1NL   | <b>Revision Date:</b>   | 12/05/2022 |
| <b>Product Name:</b>   | POLYCLAD ARO H<br>PART A   | <b>Supersedes Date:</b> | 05/30/2015 |
| <b>1.2 Relevant identified uses of the substance or mixture and uses advised against</b> | Component of multicomponent industrial coatings - Industrial use.  |                         |            |
| <b>1.3 Details of the supplier of the safety data sheet</b>                              |  |                         |            |
| <b>Manufacturer:</b>   | Carboline Global Inc.<br>2150 Schuetz Road<br>St. Louis, MO USA 63146  |                         |            |
|  | Regulatory / Technical Information:<br>Contact Carboline Technical Services at<br>1-800-848-4645                                 |                         |            |
| <b>Datasheet Produced by:</b>  | Schlereth, Ken - regulatory@carboline.com  |                         |            |
| <b>1.4 Emergency telephone number:</b>   | CHEMTREC 1-800-424-9300 (Inside US)<br>CHEMTREC +1 703 5273887 (Outside US)<br>HEALTH - Pittsburgh Poison Control 1-412-681-6669 |                         |            |

### 2. Hazard Identification

#### 2.1 Classification of the substance or mixture

Acute Toxicity, Inhalation, category 4  
 Carcinogenicity, category 2  
 Eye Irritation, category 2  
 Respiratory Sensitizer, category 1  
 STOT, repeated exposure, category 2  
 STOT, single exposure, category 3, RTI  
 Skin Irritation, category 2  
 Skin Sensitizer, category 1

**2.2 Label elements****Symbol(s) of Product****Signal Word**

Danger

**Named Chemicals on Label**

4,4' MDI, POLYMERIC MDI, 2,2, 2,4 MDI

**HAZARD STATEMENTS**

|  |      |  |
|--|------|--|
| Skin Irritation, category 2            | H315 | Causes skin irritation.  |
| Skin Sensitizer, category 1            | H317 | May cause an allergic skin reaction.                                       |
| Eye Irritation, category 2             | H319 | Causes serious eye irritation.   |
| Acute Toxicity, Inhalation, category 4 | H332 | Harmful if inhaled.  |
| Respiratory Sensitizer, category 1     | H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| STOT, single exposure, category 3, RTI | H335 | May cause respiratory irritation.  |
| Carcinogenicity, category 2            | H351 | Suspected of causing cancer.   |
| STOT, repeated exposure, category 2    | H373 | May cause damage to organs through prolonged or repeated exposure.         |

**PRECAUTION PHRASES**

|              |   |
|--------------|---|
| P260         | Do not breathe dust/fume/gas/mist/vapours/spray.  |
| P280         | Wear protective gloves/protective clothing/eye protection/face protection.  |
| P284         | Wear respiratory protection.  |
| P285         | In case of inadequate ventilation wear respiratory protection.  |
| P302+352     | IF ON SKIN: Wash with plenty of soap and water.   |
| P304+340     | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.                                    |
| P305+351+338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. |
| P308+313     | IF exposed or concerned: Get medical advice/attention   |
| P314         | Get medical advice/attention if you feel unwell.  |
| P333+313     | If skin irritation or rash occurs: Get medical advice/attention.  |
| P341         | If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.                     |
| P342+311     | If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.   |

**2.3 Other hazards**

No Information

**Results of PBT and vPvB assessment:**

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

**3. Composition/Information On Ingredients****3.2 Mixtures****Hazardous ingredients**

| <u>Name According to EEC</u> | <u>EINEC No.</u> | <u>CAS-No.</u> | <u>%</u> | <u>Classifications</u> |
|------------------------------|------------------|----------------|----------|------------------------|
|------------------------------|------------------|----------------|----------|------------------------|

|               |           |            |           |                                  |  |
|---------------|-----------|------------|-----------|----------------------------------|--|
| POLYMERIC MDI | 618-498-9 | 9016-87-9  | 50 - <75  | H315-317-319-332-334-335-351-373 |  |
| 4,4' MDI      | 202-966-0 | 101-68-8   | 25 - <50  | H315-317-319-332-334-335-351-373 | Acute Tox. 4 Inhalation, Carc. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Irrit. 2, Skin Sens. 1, STOT RE 2, STOT SE 3 RTI |
| 2,2, 2,4 MDI  | 247-714-0 | 26447-40-5 | 2.5 - <10 | H315-317-319-332-334-335-351-373 |  |

| <u>CAS-No.</u> | <u>M-Factors</u> |
|----------------|------------------|
| 9016-87-9      | 0                |
| 101-68-8       | 0                |
| 26447-40-5     | 0                |

**Additional Information:** The text for GHS Hazard Statements shown above (if any) is given in Section 16.

## 4. First-aid Measures

### 4.1 Description of First Aid Measures

**AFTER INHALATION:** Give oxygen or artificial respiration if needed. Remove person to fresh air. If signs/symptoms continue, get medical attention.

**AFTER SKIN CONTACT:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If skin irritation persists, call a physician.

**AFTER EYE CONTACT:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**AFTER INGESTION:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If swallowed, call a poison control centre or doctor immediately.

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

May cause sensitization by skin contact. Irritating to eyes and skin. May be harmful if swallowed.

### 4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

When symptoms persist or in all cases of doubt seek medical advice.

## 5. Fire-fighting Measures

### 5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Humid air and/or water will produce carbon dioxide which will pressurize the container. Contamination may result in dangerous pressure increases - closed containers may rupture.

**FOR SAFETY REASONS NOT TO BE USED:** No Information

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

No Information

### 5.3 Advice for firefighters

**SPECIAL FIREFIGHTING PROCEDURES:** In the event of fire, wear self-contained breathing apparatus. Wear suitable protective equipment. Water reactive Dry chemical (on small fires) Extinguishing media - large fires Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Do NOT use water jet.

**SPECIAL FIREFIGHTING PROTECTION EQUIPMENT:** No Information

## 6. Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Container can be pressurized by carbon dioxide due to reaction with humid air and/or water. Ensure adequate ventilation. Use personal protective equipment. Evacuate personnel to safe areas. For personal protection see section 8.

**6.2 Environmental precautions**

Do not allow material to contaminate ground water system. Prevent product from entering drains. Keep the container open.

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

Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

**6.4 Reference to other sections**

No Information

**7. Handling and Storage****7.1 Precautions for safe handling**

**INSTRUCTIONS FOR SAFE HANDLING :** Keep containers dry and tightly closed to avoid moisture absorption and contamination. Prepare the working solution as given on the label(s) and/or the user instructions. Ensure all equipment is electrically grounded before beginning transfer operations. Do not get in eyes, on skin, or on clothing. Use only with adequate ventilation/personal protection. Avoid breathing vapors, mist or gas. Wash thoroughly after handling.

**PROTECTION AND HYGIENE MEASURES :** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

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

**CONDITIONS TO AVOID:** Keep from any possible contact with water.

**STORAGE CONDITIONS:** Keep containers tightly closed in a dry, cool and well-ventilated place.

**7.3 Specific end use(s)**

No specific advice for end use available.

**8. Exposure Controls/Personal Protection****8.1 Control parameters****Ingredients with Occupational Exposure Limits (US)**

| <u>Name</u>   | <u>CAS-No.</u> | <u>ACGIH TWA</u> | <u>ACGIH STEL</u> | <u>ACGIH Ceiling</u> |
|---------------|----------------|------------------|-------------------|----------------------|
| POLYMERIC MDI | 9016-87-9      | N/E              | N/E               | N/E                  |
| 4,4' MDI      | 101-68-8       | 0.005 PPM        | N/E               | N/E                  |
| 2,2, 2,4 MDI  | 26447-40-5     | N/E              | N/E               | N/E                  |

| <u>Name</u>   | <u>CAS-No.</u> | <u>OSHA PEL</u> | <u>OSHA STEL</u> |
|---------------|----------------|-----------------|------------------|
| POLYMERIC MDI | 9016-87-9      | N/E             | N/E              |
| 4,4' MDI      | 101-68-8       | 0.02 PPM-CEILIN | N/E              |
| 2,2, 2,4 MDI  | 26447-40-5     | N/E             | N/E              |

**FURTHER ADVICE:** Refer to the regulatory exposure limits for the workforce enforced in each country. Some components may not have been classified under the EU CLP Regulation.

**8.2 Exposure controls****Personal Protection**

**RESPIRATORY PROTECTION:** In order to avoid inhalation of spray-mist and sanding dust, all spraying and sanding must be done wearing adequate respirator. Use only with ventilation to keep levels below exposure guidelines reported in this document. User should test and monitor exposure levels to ensure all personnel are below guidelines. If not sure, or not able to monitor, use State or federally approved supplied air respirator. For silica containing coatings in a liquid state, and/or if no

exposure limits are established above, air-supplied respirators are generally not required.

**EYE PROTECTION:** Safety glasses with side-shields.

**HAND PROTECTION:** Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Impervious gloves. Request information on glove permeation properties from the glove supplier. Lightweight protective clothing

**OTHER PROTECTIVE EQUIPMENT:** Ensure that eyewash stations and safety showers are close to the workstation location.

**ENGINEERING CONTROLS:** Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.

## 9. Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

|   |                               |
|---|-------------------------------|
| <b>Appearance:</b>                                  | Dark Amber Liquid             |
| <b>Physical State</b>                               | Liquid                        |
| <b>Odor</b>   | Slightly Musty                |
| <b>Odor threshold</b>                               | N/D                           |
| <b>pH</b>   | N/D                           |
| <b>Melting point / freezing point (°C)</b>          | N/D                           |
| <b>Boiling point/range (°C)</b>                     | 270 F (132 C) - 597 F (314 C) |
| <b>Flash Point (°C)</b>                             | >200F (>94C)                  |
| <b>Evaporation rate</b>                             | Slower Than Ether             |
| <b>Flammability (solid, gas)</b>                    | Not determined                |
| <b>Upper/lower flammability or explosive limits</b> | 1.3 - 7.1                     |
| <b>Vapour Pressure, mmHg</b>                        | N/D                           |
| <b>Vapour density</b>                               | Heavier than Air              |
| <b>Relative density</b>                             | Not determined                |
| <b>Solubility in / Miscibility with water</b>       | N/D                           |
| <b>Partition coefficient: n-octanol/water</b>       | Not determined                |
| <b>Auto-ignition temperature (°C)</b>               | Not determined                |
| <b>Decomposition temperature (°C)</b>               | Not determined                |
| <b>Viscosity</b>                                    | Unknown                       |
| <b>Explosive properties</b>                         | Not determined                |
| <b>Oxidising properties</b>                         | Not determined                |

### 9.2 Other information

|  |      |
|--|------|
| <b>VOC Content g/l:</b>                    | 3    |
| <b>Specific Gravity (g/cm<sup>3</sup>)</b> | 1.23 |

## 10. Stability and Reactivity

### 10.1 Reactivity

Water reactive

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Hazardous polymerisation may occur.

#### 10.4 Conditions to avoid

Keep from any possible contact with water.

#### 10.5 Incompatible materials

Never allow product to get in contact with water during storage. Strong oxidizing agents.

#### 10.6 Hazardous decomposition products

Carbon monoxide, carbon dioxide, nitrogen oxide, cyanides, isocyanate vapours.

## 11. Toxicological Information

### 11.1 Information on toxicological effects

#### Acute Toxicity:

Oral LD50: N/D

Inhalation LC50: N/D

Irritation: Unknown

Corrosivity: Unknown

Sensitization: Unknown

Repeated dose toxicity: Unknown

Carcinogenicity: Unknown

Mutagenicity: Unknown

Toxicity for reproduction: Unknown

STOT-single exposure: No Information

STOT-repeated exposure: No Information

Aspiration hazard: No Information

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

| <u>CAS-No.</u> | <u>Chemical Name</u> | <u>Oral LD50</u>        | <u>Dermal LD50</u> | <u>Vapor LC50</u>                      | <u>Gas LC50</u> | <u>Dust/Mist LC50</u> |
|----------------|----------------------|-------------------------|--------------------|--|-----------------|-----------------------|
| 9016-87-9      | POLYMERIC MDI        | >10000 mg/kg, oral, rat |                    | 310 mg/m <sup>3</sup> , inh, 4 hr, rat | 0.000           | 0.000                 |
| 101-68-8       | 4,4' MDI             | 15000 mg/kg oral        |                    | 43 ppm vapor 4 hrs                     | 0.000           | 0.000                 |
| 26447-40-5     | 2,2, 2,4 MDI         | 15000 mg/kg oral        |                    | 43 ppm vapor 4hrs                      | 0.000           | 0.000                 |

#### Additional Information:

Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates. Isocyanates may cause acute irritation and/or sensitisation of the respiratory system leading to tightness of the chest, wheeziness and an asthmatic condition. Inhalation of vapour or mist can cause headache, nausea, irritation of nose, throat, and lungs. Hot processing of this material release isocyanate containing vapours, known to be toxic by inhalation.

## 12. Ecological Information

- 12.1 **Toxicity:**
- |                      |         |
|----------------------|---------|
| EC50 48hr (Daphnia): | Unknown |
| IC50 72hr (Algae):   | Unknown |
| LC50 96hr (fish):    | Unknown |
- 12.2 **Persistence and degradability:** Unknown
- 12.3 **Bioaccumulative potential:** Unknown
- 12.4 **Mobility in soil:** Unknown
- 12.5 **Results of PBT and vPvB assessment:** The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.
- 12.6 **Other adverse effects:** Unknown

| <u>CAS-No.</u> | <u>Chemical Name</u> | <u>EC50 48hr</u>           | <u>IC50 72hr</u>        | <u>LC50 96hr</u> |
|----------------|----------------------|----------------------------|-------------------------|------------------|
| 9016-87-9      | POLYMERIC MDI        | No information             | No information          | No information   |
| 101-68-8       | 4,4' MDI             | >1000 mg/l (Daphnia Magna) | >929 mg/l (Green Algae) | No Information   |
| 26447-40-5     | 2,2, 2,4 MDI         | No information             | No information          | No information   |

## 13. Disposal Considerations

- 13.1 **WASTE TREATMENT METHODS:** Do not burn, or use a cutting torch on, the empty drum. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of in accordance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport Information

- |   |               |
|---|---------------|
| 14.1 UN number  | None          |
| 14.2 UN proper shipping name  | Not Regulated |
| Technical name  | N/A           |
| 14.3 Transport hazard class(es)   | N/A           |
| Subsidiary shipping hazard  | N/A           |
| 14.4 Packing group  | N/A           |
| 14.5 Environmental hazards  | Unknown       |
| 14.6 Special precautions for user   | Unknown       |
| EmS-No.:  | N/A           |
| 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code | Unknown       |

## 15. Regulatory Information

- 15.1 **Safety, health and environmental regulations/legislation for the substance or mixture:**

### U.S. Federal Regulations: As follows -

#### CERCLA - Sara Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Carcinogenicity, Acute Toxicity (any route of exposure), Skin Corrosion or Irritation, Respiratory or Skin Sensitization, Serious eye damage or eye irritation, Specific target organ toxicity (single or repeated exposure)

#### Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

| <u>Chemical Name</u> | <u>CAS-No.</u> | <u>%</u> |
|----------------------|----------------|----------|
| POLYMERIC MDI        | 9016-87-9      | 60.99    |
| 4,4' MDI             | 101-68-8       | 35       |

#### Toxic Substances Control Act:

All components of this product are either listed on the TSCA Inventory or are exempt.

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA 12(b) components exist in this product.

#### U.S. State Regulations: As follows -

##### New Jersey Right-to-Know:

The following materials are non-hazardous, but are among the top five components in this product.

No NJ Right-To-Know components exist in this product.

##### Pennsylvania Right-To-Know

The following non-hazardous ingredients are present in the product at greater than 3%.

No PA Right-To-Know components exist in this product.

##### CALIFORNIA PROPOSITION 65

WARNING: Cancer and Reproductive Harm -- [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

#### International Regulations: As follows -

##### \* Canadian DSL:

No Information

#### 15.2 Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## 16. Other Information

#### Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

|      |  |
|------|--|
| H315 | Causes skin irritation.  |
| H317 | May cause an allergic skin reaction.                                       |
| H319 | Causes serious eye irritation.   |
| H332 | Harmful if inhaled.  |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |



|      |  |
|------|--|
| H335 | May cause respiratory irritation.                                  |
| H351 | Suspected of causing cancer.                                       |
| H373 | May cause damage to organs through prolonged or repeated exposure. |

**Reasons for revision**

No Information

The information contained herein is, to the best of our knowledge and belief accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.