

## Safety Data Sheet

### 1. **Products and company identification**

**Product name:** ROVAL ALPHA  
**Recommended use:** Anti-corrosion of steel/iron.  
**Supplier:** Roval Corporation  
 6-41-1, Ikuno, Katano  
 Osaka, 5760054, Japan  
 +81-72-892-7791  
**Emergency phone number:** +81-72-892-9955  
**Date Revised** March 5, 2018

### 2. **Hazards identification**

**PHYSICAL HAZARDS:** Flammable Liquid Category 3

**HEALTH HAZARDS:**

|  |                         |   |
|--|-------------------------|---|
| Acute Toxicity                                 | Oral:                   | Not Classified  |
|  | Dermal:                 | Not Classified  |
|  | Inhalation (Vapors):    | Category 4  |
|  | Inhalation (Dust/mist): | Not Classified  |
| Skin Corrosion/Irritation:                     |                         | Category 2  |
| Eye Effects/Serious eye damage/Eye irritation: |                         | Category 2  |
| Skin sensitizer:                               |                         | Not Classified  |
| Germ Cell Mutagenicity:                        |                         | Not Classified  |
| Carcinogenicity:                               |                         | Category 2  |
| Reproductive Toxicity:                         |                         | Category 1  |
| TOST: Single Exposure:                         |                         | Category 1 (central nerve system, kidney, respiratory organs, and lever)<br>Category 2 (organs)<br>Category 3 (---) |
| Repeated Exposure:                             |                         | Category 1 (nerve system and respiratory organs)<br>Category 2 (---)  |
| Acute Aquatic Toxicity:                        |                         | Category 1  |
| Chronic Aquatic Toxicity:                      |                         | Category 1  |
| Hazard to ozone layer                          |                         | Classification not possible   |

\*Item without description of classification means “classification not possible” or “not classified”.

**Hazard Symbols:**



**Signal Word:** DANGER

**Hazard Statement:**

- Flammable liquid and vapor -Harmful if inhaled
- Causes skin irritation -Causes serious eye irritation -Suspected of causing cancer
- Suspected of damaging fertility or the unborn child -Causes damage to organs
- Causes damage to organs through prolonged or repeated exposure
- Toxic to aquatic life with long lasting effects

**Precautionary Statements:**

**[PREVENTION]**

- Obtain special instruction before use
- Do not handle until all safety precautions have been read and understood
- Keep away from heat/sparks/open flames/hot surfaces – No smoking
- Keep container tightly closed.
- Ground container and receiving equipment.
- Use explosion-proof electrical/ventilating/light/equipment
- Use anti-spark tools
- Take precautionary measures against static discharge
- Do not breathe dust/fume/gas/mist/vapor/spray
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product
- Use only outdoors or in a well-ventilated area
- Avoid release to the environment
- Wear protective gloves/protective clothing/eye protection/face protection

**[FIRST AID]**

- IF ON SKIN: Rinse skin with water/shower.
- IF ON SKIN or HAIR: Take off contaminated clothing and wash before use. Rinse skin/hair with water/shower.
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- IF EXPOSED (or possible): Get medical attention.
- If eye irritation persists: Get medical advice/attention.
- Take off contaminated clothes. Wash them before reusing.
- IF ON FIRE: Use carbon dioxide, foam, or powder extinguisher.
- Recover the leakage.

**[STORAGE]**

- Store in a cool, well ventilated place. -Keep locked up.

**[DISPOSAL]**

-Follow the regulations of your country when disposing of the container.

### 3. **Composition/information on ingredients**

Substance/Mixture: Mixture

General product description: Paint

| Chemical Identity | CAS Number | % Weigh |
|-------------------|------------|---------|
| Xylene            | 1330-20-7  | 16      |
| Ethyl benzene     | 100-41-4   | 15      |
| Mineral Spirit    | 8052-41-3  | 1~5     |
| Zinc              | 7440-66-6  | 55~60   |

### 4. **First-aid measures**

**Inhalation:** In case of being sick after inhalation of vapor or gas, remove a victim to fresh air at comfortable posture for breathing. If the symptom persists, get medical attention. If inhaled a large amount of vapor or gas, remove a victim to fresh air and keep warm. If breathing is irregular or not breathing, give artificial respiration. Do not let swallow vomit. Get medical attention immediately.

**Skin contact:** Wipe off accretion quickly. Wash the affected area with plenty of water with mild soap. Do not use solvent or thinner. If apparent condition changes or irritation is continued, refer to medical attention. Remove all the contaminated clothes.

**Eye contact:** Gently rinse the affected eyes with clean water for at least 15 minutes lifting upper and lower eyelids occasionally. Remove contact lenses if present and easy to do. Get immediate medical attention.

**Ingestion:** Keep rest and get medical attention immediately. Do not let swallow vomit. Do not induce vomiting without medical instruction.

### 5. **Firefighting measures**

**Extinguishing Media:** Carbon dioxide, form, powder  
Water must NOT be used for extinction.

**Special protective equipment and precaution for fire fighters:**

Wear proper protective equipment. Remove sources of ignition. Use specified extinguishing media. Cool closed containers which may be exposed to heat. Extinguish from windward side.

### 6. **Accidental release measures**

**Personal precautions:**

Use the necessary personal protective equipment (gloves, masks, aprons, and goggles) when handling. Keep ventilating inside. Handle in windward side outside. Keep away any person who is not concerned. Remove all the combustible materials and source of heat/ignition. Prepare extinguishing media for accidental fire.

**Environmental precautions:**

Be careful not to affect environment by releasing the product to waterway.

**Equipment and method for containment and cleaning-up:**

Contain the leakage into closed container and store in a safe place. Dispose of accretion or waste in accordance with local regulation. Recover the leakage with equipment which do not spark by impact or static discharge.

**7. Handling and Storage**

**[Handling]**

Handle in a well ventilated area. Keep container closed when storage. Do not use devices generate fire, spark, or high-heat. Ground all the equipment and use explosion-proof electronic devices. Used waste clothes, paint dust, and spray dust should be soaked in water. Prepare ventilating and personal protective equipment when handing this product in closed area. Wear protective equipment to avoid contact of the product with skin, mucosal membrane, and clothes. Wash hands and face completely after the handling and do not bring contaminated equipment into rest stations.

**[Storage]**

Avoid direct sunshine. Store in a dry, well-ventilated area. Keep the container in locked-up place. Keep containers away from fire/flame. Keep out of the reach of children.

**8. Exposure controls/ Personal protection**

**Control parameters:**

| Chemical Identity | ACGIH TLV (2016) |
|-------------------|------------------|
| Xylene            | 100ppm (TWA)     |
| Ethyl Benzene     | 20ppm (TWA)      |
| Mineral Spirit    | 100ppm (TWA)     |
| Zinc              | ---              |

**Equipment measure:**

Use explosion-proof equipment and ventilating equipment. Earth when using transporting, scooping, or agitating equipment. High-heat or source of ignition must not be put near the handling place.

Use auto-painting equipment or local ventilating equipment to avoid direct contact of workers with the product in closed place. Prepare the equipment which can ventilate enough at the bottom in case of the operation inside of tanks.

**Personal protection measures:**

**Respiratory protection:** Wear protective mask for organic gas. Use ventilating mask in closed place.

**Hand protection:** Protective gloves for solvent or chemicals.

**Eye protection:** Wear protective goggles.

**Skin and body protection:** Wear protective clothes for chemicals to avoid direct contact.

## 9. Physical and Chemical Properties

|                 |                      |                         |                 |
|-----------------|----------------------|-------------------------|-----------------|
| Physical State: | Liquid               | Color:                  | Silver          |
| Odor:           | Smells like solvent. | Density (g/ml):         | 1.78            |
| Flash Point:    | 25.1°C               | Explosion Limits(vol%): | LEL 0.6 UEL 8.0 |
| Vapor Pressure: | 1.4kPa               | Auto-ignition Temp:     | 190°C           |
| Boiling Point:  | 130~230°C            |                         |                 |

## 10. Stability and Reactivity

|  |  |
|--|--|
| <b>Stability:</b>                          | Stable under normal condition and anticipated storage.                                 |
| <b>Conditions to avoid:</b>                | Heat, open fire and sparks. Forming of mixture with atmosphere within flammable limit. |
| <b>Possibility of Hazardous Reactions:</b> | May react with acid or alkaline substances.  |
| <b>Hazardous decomposition Products:</b>   | Generate carbon monoxide and carbon dioxide by heating.<br>Generate stimulant gas.     |

## 11. Toxicological information

### [ACUTE TOXICITY]

| Material       | Oral        | Category       | Dermal                      | Category       |
|----------------|-------------|----------------|-----------------------------|----------------|
| Xylene         | 3.5 g / kg  | Not classified | Classification not possible |                |
| Ethyl benzene  | 3.5 g / kg  | Not classified | 15.4 g / kg                 | Not classified |
| Mineral spirit | >5.0 g / kg | Not classified | Classification not possible |                |
| Zinc           | >2.0 g / kg | Not classified | Classification not possible |                |

### [ACUTE TOXICITY - Inhalation]

| Material       | Gas  | Category | Vapor                       | Category | Dust/Mist                   | Category       |
|----------------|--|----------|-----------------------------|----------|-----------------------------|----------------|
| Xylene         | Conclusive but not sufficient for classification |          | 6700 ppm                    | Class 4  | Classification not possible |                |
| Ethyl benzene  | Conclusive but not sufficient for classification |          | 4000 ppm                    | Class 4  | Classification not possible |                |
| Mineral spirit | Conclusive but not sufficient for classification |          | Classification not possible |          | Classification not possible |                |
| Zinc           | Conclusive but not sufficient for classification |          | Classification not possible |          | >5.41 mg / L                | Not classified |

| Material       | Skin Corrosion/Irritation | Eye damage/irritation | Respiratory sensitization   | Skin sensitization          |
|----------------|---------------------------|-----------------------|-----------------------------|-----------------------------|
| Xylene         | Class 2                   | Class 2A              | Classification not possible | Classification not possible |
| Ethyl benzene  | Class 3                   | Class 2B              | Classification not possible | Classification not possible |
| Mineral spirit | Class 2                   | Not classified        | Classification not possible | Not classified              |
| Zinc           | Not classified            | Class 2B              | Classification not possible | Not classified              |

| Material       | Germ cell mutagenicity      | Carcinogenicity             | Reproductive toxicity       |
|----------------|-----------------------------|-----------------------------|-----------------------------|
| Xylene         | Not classified              | Not classified              | Class 1B                    |
| Ethyl benzene  | Not classified              | Class 2                     | Class 1B                    |
| Mineral spirit | Not classified              | Classification not possible | Not classified              |
| Zinc           | Classification not possible | Classification not possible | Classification not possible |

| Material       | TOST (Single)  | TOST (Chronic)                                | Aspiration hazard           |
|----------------|--|---|-----------------------------|
| Xylene         | Class 1<br>(respiratory system, liver, central nerve system, kidney) | Class 1<br>(respiratory system, nerve system) | Class 2                     |
|                | Class 3<br>(anesthetic action)                                       |   |                             |
| Ethyl benzene  | Class 2<br>(central nerve system)                                    | Classification not possible                   | Class 1                     |
|                | Class 3<br>(respiratory tract irritation)                            |   |                             |
| Mineral spirit | Class 3<br>(respiratory tract irritation, anesthetic action)         | Class 2<br>(liver, testicle)                  | Class 1                     |
| Zinc           | Classification not possible  | Classification not possible                   | Classification not possible |

## 12. Ecological Information

General Precaution: Be careful not to spill or leak product and wash water into river and water drain. The product may have adverse effect on environment.

**Ecological Toxicity: Acute harmful effect on aqueous milieu.**

| Material       | Acute Aquatic Toxicity | Chronic Aquatic Toxicity | Hazard to Ozone             |
|----------------|------------------------|--------------------------|-----------------------------|
| Xylene         | Class 2                | Class 2                  | Classification not possible |
| Ethyl benzene  | Class 1                | Class 1                  | Classification not possible |
| Mineral spirit | Class 1                | Class 1                  | Classification not possible |
| Zinc           | Class 1                | Class 1                  | Classification not possible |

Persistence and Degradative: No rapid degradative (BOD: 39%) Xylene

Has rapid degradative and strips quickly from water. Ethyl benzene

No rapid degradative (BOD: 12-13%) Mineral spirit

No rapid degradative (Metal compound) Zinc

Bioaccumulation potential: Xylene; may be low potential ( $\log K_{ow} = 3.16$ )

Ethyl benzene; may be low potential ( $\log K_{ow} = 3.15$ )

Mineral spirit: No data available.

Mobility in soil: No data available.

## 13. Disposal considerations

### [Residual Wastage]

Follow the local regulation. Waste including residue and container should be disposed by licensed industrial waste disposer after the consignment contract. Wash water used for cleansing containers

and equipment must not be released into environment. For other wastage arouse in effluent processing or incineration, dispose of them in accordance with the law or entrust it. Disposal of the spray can must be done after making sure it is empty and no gas pressure inside.

The product, its residue, and incinerated ash are specially-controlled industrial wastes, which must be disposed of by a licensed industrial waste disposer.

#### 14. **Transport information**

[Regulation] UN No.: 1263 UN Class: 3 (Flammable liquid) PG: III

**General:** Read sections concerning handling and storage. Confirm that there is no leakage and load the products without rolling, falling, or damage. Avoid load collapse.

**Land:** Follow local regulation, such as Fire Defense Law, Industrial Safety and Health Act, or Poisonous Material Act. Transporter must follow the precaution on the product labels.

**Sea:** Follow local regulations, such as Ship Safety Act or Act for the Prevention of Marine Pollution and Maritime Disasters.

**Air:** Follow local regulations, such as Aviation Law.

**Other:** Keep the container under the temperature less than 40°C. Be careful not to roll, fall, or damage.

**Safety measure:** Read the section regarding handling and storage. Confirm that there is no leakage and load the products without rolling, falling, or damage. Avoid load collapse.

#### 15. **Regulatory Information**

**Classification and labeling in accordance with Labor Safety and Health Act:**

See Section 2

**Other regulation for foreign countries:**

Regulatory information with regards to this preparation in your country or region should be examined by your own responsibility.

#### 16. **Other Information**

**References:**

- 1) GHS Classification Guidance for Enterprises. (United Nations 2009)
- 2) SDS from manufacturers of raw materials
- 3) Roval's own data

The information herein is given in good faith, but no warranty, express or implied, is made.

The information contained herein is, to the best of Roval's knowledge and belief, accurate and reliable as of the data issued. It is the user's responsibility to determine the suitability of this information for the adoption of necessary safety precautions. We reserve the right to revise SDS periodically as new information becomes available.