

## Safety Data Sheet

[Mixture (Paint)]

### 1. Products and company identification

Product name	ECO SERIES THINNER
Supplier	Roval Corporation
Address	6-41-1, Ikuno, Katano, Osaka
Section in charge	Technical service department
Phone number	072-892-7791
Fax number	072-892-6391
Emergency Phone Number	072-892-9955
Preparation, revision, and confirmation	Feb. 8, 2021
Product type	zincrich paint thinner
Recommended use	Dilution of paint/Cleaning of paint equipment

### 2. HAZARDS IDENTIFICATION

[GHS Classification]

PHYSICAL HAZARDS	Flammable Liquid		Category 2		
HEALTH HAZARDS					
Acute toxicity	Oral	Dermal	Inhalation (Gas)	Inhalation (Vapors)	Inhalation (Dust/Mist)
	Category 5	Classification not possible	Classification not possible	Classification not possible	Classification not possible
	Skin Corrosion/ Irritation	Serious eye damage/ irritation	Respiratory sensitisation (Solid/Liquid)	Respiratory sensitisation (Gas)	Skin sensitisation
	Category 2	Category 2B	Classification not possible	Classification not possible	Classification not possible
	Germ Cell Mutagenicity	Carcinogenicity	Reproductive toxicity	Effects on or via lactation	
	Classification not possible	Classification not possible	Classification not possible	Classification not possible	
TOST (Single exposure)	Category 1 _____		Category 2 _____		Category 3 Anesthetic effect, respiratory tract irritation
TOST (Repeated exposure)	Category 1 _____		Category 2 _____		
Aspiration hazard	Hazardous to the aquatic environment (Acute)	Hazardous to the aquatic environment (Chronic)	Hazardous to the ozone layer		
Category 1	Category 2	Classification not possible	Classification not possible		

[GHS Symbols]

Pictogram



Signal word

HAZARD

#### **Hazard statement:**

- Highly flammable liquids and vapours. • May be harmful if swallowed (oral) • Skin and eye irritation.
- May cause drowsiness and dizziness. • May cause respiratory irritation. • Fatal if swallowed or if inhaled.
- Toxic to aquatic life.

#### **Precautionary Statement**

[SAFETY MEASURES]

- Do not handle until all safety precautions have been read and understood.
- Do not eating and drinking or smoking while using this material.

- Keeping away from ignition sources such as heat, sparks, open flames, and high temperatures. No smoking.
- Keep container tightly closed
- Ground the container.
- Use explosion-proof [electrical equipment/ventilators/lighting equipment].
- Use non-sparking tools.
- To take measures against static electricity.
- Avoid inhalation of dust/smoke/gas/vapour/spray.
- Wash hands, eyes, and mouth thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in well-ventilated areas.
- Avoid release to the environment.
- Wear protective gloves/protective clothing/eye protection/face protection

**[FIRST AID]**

- **IF SWALLOWED:** Get immediate medical advice/attention.
- If it gets on the skin (or hair): immediately remove all contaminated clothing. Rinse skin with water/shower.
- **IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- **IF IN EYES:** Wash carefully with water for several minutes. If the contact lens can be easily removed, remove it and wash it.

If eye irritation persists, seek medical attention.

- Contact a doctor when you feel ill.
- If it gets on the skin: special treatment is necessary. (4.Ref. for first aid)
- Don't induce vomiting.
- If skin irritation occurs: Have a doctor's diagnosis/care.
- If eye irritation persists: Get medical advice/attention.
- Take off contaminated clothing and wash it before reuse.
- In case of fire: Use a suitable extinguisher to extinguish the fire.

**[STORAGE]**

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

**[DISPOSAL]**

- Dispose of contents/containers in accordance with local/national regulations.

**3. Composition/information on ingredients**

Substance/Mixture: Mixtures

General product description: Paint

Substance name	Ingredient	CAS No.
Mixed organic compounds	100	Non-disclosure

**4. First-aid measures**

**Inhaled:**

Move the affected person to a place with fresh air and let it rest in a breathable posture.  
 Get medical advice/attention if you feel unwell.

**Skin contact:**

To remove contaminated clothing. Wash skin quickly with plenty of water and soap.  
 If have skin irritation or feel sick, consult a physician for medical treatment. Wash contaminated clothing before reuse.

**Eye contact:**

Wash carefully with water for several minutes. Remove contact lenses if present and easy to do.  
 Continue rinsing. If eye irritation persists or feel sick, consult a physician for diagnosis and treatment.

**Swallowed:**

Rinse mouth. Do not induce vomiting. Get medical advice/attention.

**The Most Important Sign Symptoms of Acute and Delayed Onset Symptoms:**

Inhaled: cough, sore throat, headache, nausea, fatigue, dizziness, confusion, loss of consciousness.

Skin contact: Dry skin, redness.

Eye contact: Redness and pain.

Swallowed: nausea, vomiting, abdominal pain, and diarrhea. Further see Inhalation.

**Necessary precautions for the protection of first aid providers:**

The rescuer should wear appropriate personal protective equipment in accordance with the specific situation.

**Special precautions for physicians:**

Symptoms may develop later, and medical follow-up is necessary when overexposed.

5. Fire-fighting measures

**Fire extinguishing agents:**

Small fire: Carbon dioxide, powdered fire extinguishing agent, water spray, alcohol resistant foam extinguishing agent.

Large fire: watering, spray water, alcohol-resistant antifoaming agent.

**Fire extinguishing agents not to be used:**

Rod-shaped pouring

**Hazards unique to fire:**

There is a risk of generating irritating, toxic, or corrosive gases by fire.

Flammable, easily ignited by heat, sparks and flames. The container may explode due to heating.

Flammable liquids and vapours.

**Specific fire extinguishing methods:**

If there is a risk of fire spreading in the opposite direction due to sprinkling, use appropriate extinguishing agents listed above other than sprinkling water.

In the case of a large fire that is not extinguished with a fire extinguishing agent other than water sprinkling, sprinkle with water.

Move containers from fire area if not hazardous. If immobile, cool by sprinkling water in the container and surrounding area.

Cool the container thoroughly by using a large amount of water even after extinguishing the fire.

**Special protective equipment and preventive measures for those performing fire fighting activities:**

Air respirators and chemical protective clothing should be worn during fire extinguishing operations.

Fire extinguishment from the wind.

6. Accidental release measures

**Precautions for the Human Body, Protective Equipment, and Emergency Measures:**

Workers wear appropriate protective equipment (see section 8. Prevention of exposure and protection measures) and avoid contact with eyes and skin or inhalation of gases. Do not touch or walk through the spill. Immediately sequester the appropriate distance in all directions as a leak area.

Irrelevant persons are prohibited to enter.

Wear highly sealable, impervious protective clothing even if the leakage does not occur in the case of fire. Stay upwind. Get out of the low ground. Ventilate before entering a confined space.

**Environmental precautions:**

Prevent entry into drains, groundwater ditches, underground rooms or closed areas.

Avoid that the spill does not flow out into sewers, rivers, etc. to cause secondary disasters or environment contaminations. Do not release into the environment.

**Collection:**

In small quantities, collect in empty containers that can be absorbed with dry soil, sand or non-flammable material or covered and sealed. Dispose of it later.

In case of small amounts, use a clean antistatic tool when collecting absorbed material.

In the case of large quantities, it is surrounded by filling to prevent runoff, and it is guided to a safe place and recovered.

In the case of large quantities, sprinkling water reduces the vapor concentration. However, there is a possibility that combustion cannot be suppressed in a sealed place.

**Methods and equipment for containment and purification:**

Stop leaking if not dangerous. All equipment used to handle spills shall be grounded.

Vapor inhibition bubbles are used to reduce vapor concentration.

**Preventive measures for secondary disasters:**

Quickly remove all ignition sources (no smoking in the vicinity, no sparks or flames).

Prevent entry into drains, groundwater ditches, underground rooms or closed areas.

When steam is generated frequently, steam generation is suppressed by spraying water. Notify the relevant areas and seek support.

7. Handling and storage

**Handling:**

■ Technical countermeasures

Electrical equipment and tools shall be explosion-proof and precautions shall be taken against electrostatic discharge.

Prohibit the use of hot materials, sparks, or fire in the vicinity. -No smoking.

Implement equipment measures as described in "8. Exposure prevention and protection measures" and wear protective equipment.

Ensure that the equipment and devices are grounded to prevent static electricity.

■ Local exhaust and general ventilation

Conduct local exhaust and general ventilation as described in "8. Exposure prevention and protection measures."

Prevent liquid leakage and vapor dissipation as much as possible.

■ Safety precautions

Do not handle until all safety precautions have been read and understood.

Prohibit the use of hot materials, sparks, or fire in the vicinity.

The substance is irritating to the eyes and should not come into contact with the eyes.

Contact, inhalation, or swallowing of this product is not permitted because of the fear of sleepiness or dizziness, respiratory irritation, or damage to organs. Don't tumble, drop, shock or drag containers, or otherwise handle them.

Do not inhale mists, vapours, or sprays. Do not eat and drinking or smoking while using this material.

Do not put in eyes. Do not absorb and swallow it.

Wash hands after work. Handle in a well ventilated area.

■ Contact avoidance

See "10. Safety and Reactivity".

**Storage:**

■ Technical countermeasures

To make the walls, columns, and floors of the storage area of fire-resistant structure and to make the girders of incombustible material.

The roof shall be made of non-combustible material and shall be wiped with metal plates or other lightweight non-combustible materials and shall not be provided with a ceiling.

The floor of the storage area shall be so constructed that water does not penetrate or penetrate the floor surface.

The floor of the storage area shall be appropriately tilted and provided with an appropriate reservoir.

Storage areas shall be provided with the necessary facilities for light, illumination and ventilation to store or handle hazardous materials.

■ Safe storage conditions

Store away from sources of ignition, such as heat, sparks or open flames. --No smoking.

Store in a cool place or in a well-ventilated place. Store away from oxidants.

Containers should be protected from direct sunlight and fire. Keep containers sealed and well ventilated.

Quantities of one-fifth or more of the designated quantity shall not be stored at any place other than a hazardous materials storage facility. Store locked.

■ Incompatible materials

See "10. Safety and Reactivity".

■ Containers and packaging materials

Use containers specified in the Fire Service Law and the UN Transport Law.

8. Exposure controls/Personal protection

Substance name	Exposure limits
	ACGIH (FY2016)
Mixed organic compounds	—

**[Equipment Measures]**

Use explosion-proof electrical, ventilating and lighting equipment.

Do preventive measures to electrostatic discharge.

Eyewashers and safety showers should be installed in workplaces where this substance is not stored or handled.

Exhaust ventilation should be used to keep airborne concentrations below the exposure limit.

Post necessary signs such as "fire strict prohibition" and "prohibition of entry other than related persons" in easy-to-see places.

Depending on the situation, gas detectors, etc. shall be installed for safety management.

**[Protection]**

**Respiratory protective equipment:**

Wear appropriate respiratory protection (gas mask for organic gases).

**Hand protectors:**

Wear protective gloves (organic solvent-resistant gloves).

**Eye protection:**

Wear protective gloves (organic solvent-resistant gloves).

**Skin and body protection:**

Wear protective shoes (electrostatic shoes), oil-resistant (for measures against impermeability and static electricity), protective clothing (for measures against static electricity), etc.

**[Special precautions]**

**Hygiene measures:**

Wash hands, eyes, and mouth well after handling.

9. Physical and Chemical Properties

Physical State	:Liquid	Physical property (color)	:Clear, colorless
Odor	:Distinctive odor	Density (g/ml)	:0.872
Flash point	:22.3°C	Explosion Limits	:LEL 1.0vol % UEL 7.0vol %
Vapor pressure	:—	Auto-ignition temp	:≥ 200°C
Boiling point	:105°C		

10. Stability and Reactivity

**Reactivity:**

Stable in normal handling.

**Chemical Stability:**

Under normal conditions, no hazardous reactions occur.

As a result of flow, agitation, etc., electrostatic charges can be generated.

**Hazardous reactivity:**

Reacts violently with strong oxidants causing fire and explosion hazard.

**Conditions to avoid:**

Formation of mixed gases within explosion limits with air.

**Incompatible Materials:**

Oxidants.

**Hazardous decomposition products:**

Burning produces carbon monoxide, carbon dioxide, etc.

1 1. Toxicological information

ACUTE TOXICITY

Substance name	Oral	Classification	Dermal	Classification
Mixed organic compounds	Category 5		Classification not possible	

ACUTE TOXICITY

Substance name	Inhalation (Gas)	Classification	Inhalation (Vapors)	Classification	Inhalation (Dust/Mist)	Classification
Mixed organic compounds	Classification not possible		Classification not possible		Classification not possible	

Substance name	Skin corrosion/irritant	Serious eye damage/eye irritant	Respiratory sensitisation	Skin sensitisation
Mixed organic compounds	Category 2	Category 2B	Classification not possible	Classification not possible

Substance name	Germ Cell Mutagenicity	Carcinogenicity	Reproductive toxicity
Mixed organic compounds	Classification not possible	Classification not possible	Classification not possible

Substance name	TOST (Single)	TOST (Repeat)	Aspiration hazard
Mixed organic compounds	Category 3 (anesthetic effect, respiratory tract irritation)	Classification not possible	Category 1

1 2. Ecological information

**General Precautions:**

Handle the product carefully in case of leakage, disposal, etc., as this may affect the environment.

The product may have adverse effect on environment.

In particular, take measures to prevent products and wash water from flowing directly to the ground, rivers and drains.

Ecotoxicity:

Substance name	Acute Aquatic Toxicity	Chronic Aquatic Toxicity	Hazardous to the ozone layer
Mixed organic compounds	Category 2	Classification not possible	Classification not possible

**Persistence and degradability:** ———

**Eco-accumulative:** ———

1 3. Disposal considerations

**[Residual Waste, Contamination Containers and Packaging]**

Disposal shall be in accordance with relevant laws and regulations as well as the standards of local governments. Waste paints, waste solvents, containers, and other wastes shall be disposed of by contracting with a licensed industrial waste disposal contractor. Do not release empty container and wash water into environment. For other wastage arise in effluent processing or incineration, dispose of them in accordance with the law or entrust it. Dispose of the empty container after the rest of paint completely removed. Empty containers, packaging, etc. is recommended for recycling. Dispose of the empty container after the rest of paint completely removed. Empty container should be disposed of by industrial waste disposal contractor after the consignment contract.

1 4. Transport information

**[Regulations]** UN No. 1263 UN Classification: 3 PG: II

**Transport:**

Follow the instructions in the Handling and Storage Precautions section.

Check that there is no leaking in the container, and load. Prevent collapse of the container so that there is no falling or damage.

**Land transport:**

Follow all regulation on the transport in your country or region.

The consignor shall issue the Carriage Precautions (Yellow Card) to the Carrier.

**Maritime transportation:**

The provisions of the Ship Safety Act shall be followed.

**Air Transportation:**

In accordance with the provisions of the Aeronautical Law.

**Safety measures:**

Follow the instructions in the Handling and Storage Precautions section.

Check that there is no leaking in the container, and load. Prevent collapse of the container so that there is no falling or damage.

1 5 . 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.

1 6 . Other information

**References:**

- 1) GHS Classification Guidance for Enterprises.
- 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.