SAFETY DATA SHEET

1. Product & Company Identification

Product Name	:	**RST-DRY**
Product Use	:	Anti-Rust for Mold and Machinery parts (For industrial use.)
Company	:	MISUMI Corporation
Identification	:	Iidabashi First Bldg., 5-1, Koraku 2-chome, Bunkyo-ku, Tokyo 112-8583, Japan
Emergency Telephone Numbers	:	(TEL)+81-3-5805-7190 / (FAX) +81-3-5805-7191

2. Hazards Identification

Physical Hazards

Explosives	:	Not applicable
Flammable gases	:	(Flammable aerosols)
Flammable aerosols	:	Category 1
Oxidizing gases	:	Classification not possible
Gases under pressure	:	(Flammable aerosols)
Flammable liquids	:	Category 2
Flammable solids	:	Not applicable
Self-reactive substances and mixtures	:	Not applicable
Pyrophoric liquids	:	Classification not possible
Pyrophoric solids	:	Not applicable
Self-heating substances and mixtures	:	Classification not possible
Substances and mixture, which in contact with water, emit flammable gases	:	Not applicable
Oxidizing liquids	:	Not applicable
Oxidizing solids	:	Not applicable
Organic peroxides	:	Not applicable
Corrosive to metals	:	Classification not possible

Health Hazards

Acute toxicity (Oral)	:	Category 4
Acute toxicity (Skin)	:	Classification not possible
Acute toxicity (inhalation :gas)	:	Classification not possible
Acute toxicity (inhalation :vapor)	:	Classification not possible
Acute toxicity (inhalation :dust)	:	Not applicable
Acute toxicity (inhalation :mist)	:	Category 4
Skin corrosion / irritation	:	Category 3
Serious eye damage / eye irritation	:	Category 2A
Respiratory	:	Classification not possible
Skin sensitizer	:	Classification not possible
Germ cell mutagenicity	:	Classification not possible
Carcinogenicity	:	Classification not possible
Toxic to reproduction	:	Category 2

Specific target organs / systemic toxicity following single exposure :
Category 2 (lungs)
Category 3 (narcotic effects)

Specific target organs / systemic toxicity following repeated exposure :
Category 1 (lungs, skin)

Aspiration hazard	:	Category 1

Environmental Hazards

Hazardous to the aquatic environment (acute)	:	Category 2
Hazardous to the aquatic environment (chronic)	:	Category 2

GHS Classification and Labeling :

GHS Symbol

Signal Word **Danger**

Hazard statement

Extremely flammable aerosol.
Highly flammable liquid and vapor.
Toxic if swallowed.
Toxic if inhaled.
Causes mild skin irritation.
Causes serious eye irritation.
Suspected of damaging fertility or the unborn child.
May cause damage to organs. (lungs)
May cause respiratory irritation. May cause drowsiness and dizziness.
Causes damage to organs (lungs, skin) through prolonged or repeated exposure.
May be fatal if swallowed and enters airways.
Toxic to aquatic life.
Toxic to aquatic life with long lasting effects.

Prevention precautionary statements

Prevention

Keep away from heat / sparks / open flames / hot surfaces – No smoking.
Pressurized container – Do not pierce or burn, even after use.
Do not spray on an open flame or other ignition source.
Keep container tightly closed.
Use explosion-proof electrical / ventilating / light / … / equipment.
Take precautionary measures against static discharge.
Use only non-sparking tools.
Do not eat, drink or smoke when using this product.
Wash…thoroughly after handing.
Avoid breathing spray.
Use only outdoors or in a well-ventilated area.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid release to the environment.
Wear protective gloves / protective clothing / eye protection / face protection / protective clothing.

Response

IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.
Wash contaminated clothing before reuse.
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 eye irritation persists: Get medical advice/attention.
Wash …thoroughly after handing.
Call a POISON CENTER / doctor / physician if you feel unwell.
IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician. Do NOT induce vomiting.

Storage

Store at temperatures not exceeding 50℃ / 122℉. Keep cool. Protect from sunlight. Store away from other materials. Store in well-ventilated place. Keep container tightly closed. Store locked up.

Disposal

Dispose of contents / container to…in accordance with local / regional / national / international regulations (to be specified).

3. Composition / information on ingredients

COMPONENTS (Hazardous Components 1% or greater; Carcinogens 0.1% or greater)	WT%	CAS No.
Corrosion Inhibitors	1 - 5	—
Mineral Oil	0.1 - 0.5	—
Dyes (color type only)	0.1>	4314-14-1 17354-14-2
Methylcyclohexane (MCH)	3 - 5	108-87-2
Isohexane Mixture of 2-methylpentane, 3-methylpentane 2.2-dimethylbutane 2.3-dimethylbutane	20 - 30	 107-83-5 96-14-0 75-83-2 79-29-8
Nomalhexane	0.1 - 0.5	110-54-3
Propane	25 - 30	74-98-6
Butanes	40 - 45	106-97-8 75-28-5

4. First - aid measure

Skin contact :

Wash skin with plenty of soap and water until all traces of material are removed.
Get medical attention if skin irritation persists.

Eye contact :

In case of contact with the liquid or vapor wash the eyes with water or neutral saline for at least 15 minutes.
Remove contact lenses if worn. If irritation still occurs, get medical attention immediately.

Inhalation :

Remove the victim from the contamination immediately to fresh air, keep warm and rest.
If breathing is weak, irregular or has stopped, commence artificial respiration.
Oxygen may be beneficial. Get medical attention.

Ingestion :

Rinse mouth with water and if swallowed dilute with water.
Do not induce vomiting. If swallowed, get immediate medical attention.

5. Fire - fighting measure

Suitable extinguishing agents :

Dry chemicals, carbon dioxide and form.

Unsuitable extinguishing agents :

Water jet

Special fire-fighting procedures :

Use dry chemicals, foam or carbon dioxide should be used for small fire.
Tank fire is best controlled by foam.
Water is not preferable extinguishing medium, but water spray should be used to cool fire-exposed containers.
Firefighters should wear self-contained breathing apparatus with full face peace operated in positive pressure mode.

Hazardous decomposition products :

CO on incomplete combustion, NOx on combustion.

6. Accidental release measure

Shut off all sources of ignition ; No flares, smoking, or flames in area.
Wear proper protective equipment.
For small spills, absorb spill with inert material (e.g., dry sand).
For large spill, dike and cover by foam for later disposal.

Do not pour into drains as explosive concentration may develop.

7. Handling and storage

Physical hazards :

Flammable liquids. In use, may foam flammable / explosive vapor air mixture.
Vapors catch fire and explode.

Handing :

Use only in well-ventilated area.
Avoid contact with skin or eyes using adequate protective equipment.
Shut off all sources of ignition during use.
Prevent spills from entering sewers or watercourses.

Storage :

Store in a cool well ventilated location and prevent build-up electrostatic charge (e.g. by grounding).
Use reduced-sparking hand tools.

8. Exposure controls and personal protection

Occupational Exposure Limits :

COMPONENTS	Limit	TLV-TWA
i-hexane	ACGIH	500ppm
n-hexane	ACGIH	50ppm
MCH	ACGIH	400ppm
Propane	ACGIH	1000ppm
Butanes	ACGIH	800ppm

Engineering controls :

Provide general and / or local exhaust ventilation to control airborne levels below the exposure guidelines.

Personal Protective equipment

Respiratory protection : Industrial canister gas masks.
Eye protection : Chemical safety goggles.
Skin protection : Protective long sleeves clothing.
Body protection : Anti-static electrical work clothes, anti-static electrical boots.
Special protection information : Avoid a prolonged or repeated contact.

9. Physical and chemical properties【Raw material / Propellant】

Appearance and odor	:	Yellowish / Green liquid with faint Petroleum odor		
pH	:	No data available		
Boiling Point (℃)	:	59～101	/	－42～0.5
Melting Point (℃)	:	－126.7～－95	/	－189.7～－138
Flash Point (℃)	:	<－30～－6	/	－104～－74
Auto ignition Temperature (℃)	:	240～285	/	405～550
Flammable Limits (%by volume)	:	1～7.5	/	1.6～10
Vapor Pressure	:	1.7～20.5kPa / 20℃	/	0.45～0.60 MPa / 40℃
Vapor Density (air=1)	:	3.0～3.4	/	1.895～2.538
Specific Gravity	:	0.66～0.77 / 20℃	/	0.507～0.55 / 15℃

10. Stability and Reactivity

Chemical stability :

Stable under normal conditions.

Substances to avoid contamination :

Strong-oxidizing agents.

Hazardous reaction and fire danger :

No risk of specific hazardous reaction or fire under normal condition.

Products causing hazardous decomposition :

Thermal decomposition or combustion may Cox and Nox.

11. Toxicological information

Eye effects :

At high vapor concentrations eye irritation may occur. Liquid is irritation to the eyes.

Skin effects :

It has a degreasing action on the skin. It is producing irritation and reddening.

Inhalation effects :

At high concentration, vapor inhalation induces narcosis, dizziness, nausea, headache, or irritation to upper respiratory tract.

Ingestion effects :

If swallowed, may cause lung damage.

Acute ORAL effects :

Oral LD_{50} (rat) : 10000mg/kg/4W- I (i-hexane), 25000mg/kg (n-hexane)

Oral LD_{50}(rabbit) **:** >3200mg/kg (MCH)

Acute inhalation effects :

LC_{50} (rat) **:** 77000ppm/1H (Normal-hexane) , 55000ppm/2H (Propane)

LC_{50} (marmot) **:** >55000ppm/2H (Propane)

12. Ecological information

Biodegradability : Do not allow product to enter drains, waterways or sewers.

Bioaccumulation : No data available.

13. Disposal considerations

Do not dump into sewers, on the ground or into any body of water.

Dispose of empty containers after cleaning them out.

14. Transportation information

UN CLASS : 2. 1

UN Number : 1950 (Aerosol, flammable)

Keep away from oxidizing materials and source of ignition.

Follow all regulations in your country.

HS Code : 3824.90.900

15. Regulatory information

Japanese Regulations

High Pressure Gas Safety Law **:**

Flammable Gases

Fire Service Law **:**

4th group of 1st Class petroleums, water-insoluble (200L)

Poisonous and Deleterious Substances Control Law **:**

Not Applicable

Enforcement Order of the Industrial Safety and Health Act (Dangerous Substances) **:**

Inflammable Substances

Industrial Safety and Health Law (Labeling, etc.)

Not Applicable

Industrial Safety and Health Law (Deliver of Documents, etc.) **:**

Hexane, Methylcyclohexane, Mineral oil, Butane

Ordinance on Prevention of Organic Solvent Poisoning **:**

Not Applicable

Pollutant Release and Transfer Register Law **:**

Not Applicable

16. Other information

The information is offered in good faith as typical values and not as a product specification. No warranty, expressed or implied, is hereby made.

The recommended industrial hygiene and safe handling procedures are believed to be generally applicable.

However, each user should review theses recommendations in the specific context of the intended use and determine whether they are appropriate.

* * * * * This is the last page. * * * * *