Set Up Date

December 19, 2001

SAFETY DATA SHEET

[1.PRODUCT AND COMPANY IDENTIFICATION]

PRODUCT NAME : LUNAC O-LL-V **SUPPLIER** : Kao Corporation

ADDRESS : 1-3,Bunka 2-chome,Sumida-ku,Tokyo 131-8501 Japan

DIVISION : Global Chemical Business

TELEPHONE NUMBER : 81-3-5630-7700 **FAX NUMBER** : 81-3-5630-7889 E-MAIL ADDRESS : chemical@kao.co.jp : 81-3-5630-7700 **EMERGENCY TELEPHONE NUMBER**

RECOMMENDED USE

AND RESTRICTIONS ON USE

[2.HAZARDS IDENTIFICATION]

GHS CLASSIFICATION

PHYSICAL AND CHEMICAL HAZARDS: Not classified

HEALTH HAZARDS

ACUTE TOXICITY (Oral) : Not classified **ACUTE TOXICITY (Dermal)** : Not classified

: Not applicable(Vapours) ACUTE TOXICITY (Inhalation)

SKIN CORROSION / IRRITATION : Not classified SERIOUS EYE DAMAGE / EYE : Not classified

IRRITATION

RESPIRATORY SENSITIZATION : Classification not possible

SKIN SENSITIZATION : Not classified **GERM CELL MUTAGENICITY** : Not classified CARCINOGENICITY : Not classified REPRODUCTIVE TOXICITY : Not classified

SPECIFIC TARGET ORGAN TOXICITY

- SINGLE EXPOSURE : Classification not possible

- REPEATED EXPOSURE : Not classified

ASPIRATION HAZARD : Classification not possible

ENVIRONMENTAL HAZARDS

HAZARDOUS TO THE AQUATIC ENVIRONMENT

- ACUTE HAZARD : Not classified - LONG-TERM HAZARD : Not classified

- HAZARDOUS TO THE OZONE : Classification not possible

LAYER

GHS LABEL ELEMENTS

PICTOGRAMS OR SYMBOLS : Not applicable SIGNAL WORD : Not applicable HAZARD STATEMENTS : Not applicable

PRECAUTIONARY STATEMENTS

PREVENTION : Wash thoroughly after handling.

If needed, use personal protective equipment as required.

IF IN EYES: Rinse cautiously with water for several minutes. Remove RESPONSE

> contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN: Gently wash with plenty of water and soap. Call a POISON CENTER or doctor if you feel unwell.

STORAGE : Store in well-ventilated place.

DISPOSAL

SAFE HANDLING ADVICE : Refer to SDS.

[3.COMPOSITION / INFORMATION ON INGREDIENTS]

SUBSTANCE OR MIXTURE : Substance

INGREDIENTS AND CONCENTRATION: Oleic acid

RANGE

CAS RN : 112-80-1

[4.FIRST-AID MEASURES]

IN CASE OF INHALATION : Remove person to fresh air and keep comfortable for breathing.

IN CASE OF SKIN CONTACT : Gently wash with plenty of soap and water.

IN CASE OF EYE CONTACT : Rinse cautiously with water for several minutes. Remove contact lenses,

if present and easy to do. Continue rinsing.

IN CASE OF INGESTION : Call a POISON CENTER or doctor if you feel unwell.

[5.FIRE-FIGHTING MEASURES]

EXTINGUISHING MEDIA : Powder, alcohol-resistant foam, carbon dioxide, sand

NOT SUITABLE EXTINGUISHING

MEDIA

: No information available

SPECIFIC HAZARDS : No information available

SPECIFIC METHODS : Keep away from sources of ignition and use appropriate extinguishing

media. Fight fire from upwind position if possible.

PROTECTION OF FIRE FIGHTERS Use goggles in combination with dust mask, and other protections as

appropriate to situation.

[6.ACCIDENTAL RELEASE MEASURES]

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND **EMERGENCY PROCEDURE**

: Use goggles and protective gloves. Large spills: Remove person to safety.

Ensure adequate ventilation.

ENVIRONMENTAL PRECAUTIONS

METHODS FOR CLEANING UP

: Do not discharge into the drains, surface waters or ground water directly.

Small spills: Absorb spills with sand, inert absorbent, waste cloth or

sawdust. Then wipe up remainder in waste cloth.

Large spills: Dike spills and dispose of in safe area.

PREVENTION OF SECONDARY

HAZARDS

: Keep away from sources of ignition and prepare extinguishing media.

[7.HANDLING AND STORAGE]

HANDLING

TECHNICAL MEASURES : Facilities storing or utilizing this material should be equipped with an

eyewash facility and a safety shower.

PRECAUTIONS : Keep away from source of ignition.

SAFE HANDLING ADVICE : Use an adequate ventilation. Wash thoroughly after handling.

If needed, use personal protective equipment as required.

Avoid contact with bases.

STORAGE

SUITABLE STORAGE CONDITIONS : Store container tightly closed in well-ventilated place.

Keep away from source of ignition.

Do not store with alkalies.

SAFE PACKAGING MATERIALS : No information available

[8.EXPOSURE CONTROLS / PERSONAL PROTECTION]

ENGINEERING MEASURES : Facilities storing or utilizing this material should be equipped with an

eyewash facility and a safety shower.

Kao Corporation Revised Date

Use an adequate ventilation.

LIMIT VALUES

: Not established ACGIH (TLV) OSHA (PEL) : Not established

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION : Use as appropriate to situation.

HAND PROTECTION : Rubber gloves **EYE PROTECTION** : Safety glasses SKIN AND BODY PROTECTION : Full-body suit

HYGIENE MEASURES No information available

[9.PHYSICAL AND CHEMICAL PROPERTIES]

APPEARANCE

PHYSICAL STATE : Liquid(solid in winter(under 20C))

COLOUR : Light yellow clear **ODOUR** : Characteristic odour pΗ : Not applicable SPECIFIC TEMPERATURES / TEMPERATURE RANGES

AT WHICH CHANGES IN PHYSICAL STATE OCCUR **BOILING POINT** : No information available **MELTING POINT** : No information available

FLASH POINT 196 °C 384.8 °F) (CLEVELAND open cup method)

FLAMMABILITY OR EXPLOSIVE PROPERTIES

: UPPER LIMIT : No information available LOWER LIMIT : No information FLAMMABILITY OR EXPLOSIVE

LIMITS available

VAPOUR PRESSURE : No information available VAPOUR DENSITY : No information available : No information available DENSITY (SPECIFIC GRAVITY)

SOLUBILITY

WATER SOLUBILITY : Poor

SOLVENT SOLUBILITY Soluble in various organic solvents.

PARTITION COEFFICIENT: n-: No information available

OCTANOL / WATER (log Pow)

AUTO-IGNITION TEMPERATURE : No information available **DECOMPOSITION TEMPERATURE** : No information available **ODOUR THRESHOLD** : No information available **EVAPORATION RATE** No information available FLAMMABILITY (SOLID, GAS) : No information available VISCOSITY : No information available No information available OTHER DATA

[10.STABILITY AND REACTIVITY]

CHEMICAL STABILITY : Stable in general. POSSIBILITY OF HAZARDOUS : No self-reactivity.

REACTIONS

This material reacts exothermically with bases, and produces salts.

No special hazardous and harmful combustion or decomposition

CONDITIONS TO AVOID : Avoid contact with strong bases.

INCOMPATIBLE MATERIALS Do not use cupric material.

HAZARDOUS DECOMPOSITION

products.

PRODUCTS

OTHERS : No information available **Kao Corporation** Revised Date

[11.TOXICOLOGICAL INFORMATION]

ACUTE TOXICITY

Oral

INFORMATION ON PRODUCT : Data on oleic acid

> Rat, LD50: 25 g/kg (2) Mouse, LD50: 28 g/kg (2)

Dermal

INFORMATION ON PRODUCT : No information available

Inhalation

INFORMATION ON PRODUCT : No information available

SKIN CORROSION / IRRITATION

INFORMATION ON PRODUCT : Rabbit, undiluted, 4hr, semi-occluded application (OECD 404) :

Not classified

SERIOUS EYE DAMAGE / IRRITATION

INFORMATION ON PRODUCT : Rabbit, Draize test, 100mg : Mild (2)

RESPIRATORY OR SKIN SENSITIZATION

RESPIRATORY

INFORMATION ON PRODUCT : No information available

SKIN

INFORMATION ON PRODUCT : No information available

MUTAGENICITY (GERM CELL MUTAGENICITY)

INFORMATION ON PRODUCT : Ames test (TA98, TA100) : Negative

CARCINOGENICITY

INFORMATION ON PRODUCT : No information available

IARC : Not listed NTP : Not listed EU : Not listed **OSHA** : Not listed

REPRODUCTIVE TOXICITY

INFORMATION ON PRODUCT : No information available

SPECIFIC TARGET ORGAN TOXICITY

- SINGLE EXPOSURE

INFORMATION ON PRODUCT : No information available

- REPEATED EXPOSURE

INFORMATION ON PRODUCT : No information available

ASPIRATION HAZARD

INFORMATION ON PRODUCT : No information available OTHER INFORMATION : No information available

[12.ECOLOGICAL INFORMATION]

ECOTOXICITY : Data on oleic acid

Red killifish, 96h, LC50: > 2.5 mg/L (12) Daphnia magna, 48h, EC50 : > 2.8 mg/L (12) Selenastrum, 72h, EC50 : > 2.6 mg/L (12) Daphnia magna, 21days: NOEC = 0.32 mg/L

(over the maximum soluble concentration) (Data on oleic acid) (12)

PERSISTENCE / DEGRADABILITY : Modified MITI test I (OECD 301C), 28days :

Readily biodegradable (data on oleic acid) (4)

MOBILITY IN SOIL No information available BIOACCUMULATIVE POTENTIAL : No information available

Kao Corporation Revised Date

: No information available OTHER ADVERSE EFFECTS

[13.DISPOSAL CONSIDERATIONS]

Review "HANDLING AND STORAGE (Section 7)".

Passed to a licensed waste contractor.

Dispose of waste in accordance with local state and federal regulations.

[14.TRANSPORT INFORMATION]

Follow all regulations in your country or region

INTERNATIONAL REGULATIONS

UN CLASS / UN NUMBER : Not applicable (IMDG, IATA)

SPECIAL PRECAUTIONS FOR USER : Review "ACCIDENTAL RELEASE MEASURES (Section 6)".

> Review "HANDLING AND STORAGE (Section 7)". Ensure containers without breakage or leakage.

Ensure containers tightly fixed.

Follow all regulations in your country or region.

Keep away from source of ignition.

[15.REGULATORY INFORMATION]

Follow all regulations in your country or region.

INVENTORIES : ENCS(Japan) 2-975

> TSCA(USA) Yes **EINECS(EU)** 204-007-1 AICS(Australia) Yes DSL(Canada) Yes

> ECL(Korea) KE-26450 PICCS(Philippines) Yes IECSC(China) Yes

KAO Corporation is not able to check up the regulatory information in regard to the substances in your country or region, therefore, we request this matter would be filled by your responsibility.

[16.OTHER INFORMATION]

REFERENCE : -Safety data sheet for chemical products - Part 1: Content and order of

sections(ISO 11014-1)

-International Chemical Safety Cards(ICSC) (Compiler's Guide)(1994)

(2) Registry of Toxic Effects of Chemical Substances

(4)Biodegradation and Bioconcentration of the Existing Chemical

Substances under the Chemical Substances Control Law

(12) Results of Eco-toxicity tests of chemicals conducted by Ministry of

the Environment in Japan

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