Set Up Date

March 18, 1996

SAFETY DATA SHEET

[1.PRODUCT AND COMPANY IDENTIFICATION]

: AMBER CORE PRODUCT NAME **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 **EMERGENCY TELEPHONE NUMBER** : 81-3-5630-7700

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

ACUTE TOXICITY (Inhalation) : Classification not possible(Vapours)

SKIN CORROSION / IRRITATION : Not classified SERIOUS EYE DAMAGE / EYE : Category 2B

IRRITATION

RESPIRATORY SENSITIZATION : Classification not possible

SKIN SENSITIZATION : Not classified GERM CELL MUTAGENICITY : Not classified

CARCINOGENICITY : Classification not possible

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 : Category 2 - LONG-TERM HAZARD : Category 2

- HAZARDOUS TO THE OZONE : Classification not possible

LAYER

GHS LABEL ELEMENTS

PICTOGRAMS OR SYMBOLS

SIGNAL WORD Warning

HAZARD STATEMENTS Causes eye irritation

Toxic to aquatic life with long lasting effects

PRECAUTIONARY STATEMENTS

PREVENTION : Avoid release to the environment.

Wash thoroughly after handling.

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

contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

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IF ON SKIN: Gently wash with plenty of water and soap. Call a POISON CENTER or doctor if you feel unwell.

Collect spillage.

STORAGE

DISPOSAL Passed to a licensed waste contractor.

SAFE HANDLING ADVICE : Refer to SDS.

[3.COMPOSITION / INFORMATION ON INGREDIENTS]

SUBSTANCE OR MIXTURE : Substance

INGREDIENTS AND CONCENTRATION: 1-(2-tert-Butyl Cyclohexyloxy)-2-butanol

RANGE

CAS RN : 139504-68-0

[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.

If eye irritation persists: Get medical advice/attention.

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.

Do not flow the materials causing adverse effects into the environment

with effluent fire extinguishing agents.

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

: Avoid release to the environment.

METHODS FOR CLEANING UP : 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.

STORAGE

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

Keep away from source of ignition.

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.

Use an adequate ventilation.

LIMIT VALUES

ACGIH (TLV) : Not established 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

COLOUR : Colorless clear **ODOUR** : Characteristic odour pН : No data available SPECIFIC TEMPERATURES / TEMPERATURE RANGES AT WHICH CHANGES IN PHYSICAL STATE OCCUR

BOILING POINT : No information available **MELTING POINT** : No information available

FLASH POINT 144.0 °C (291.2 °F) (CLEVELAND open cup method)

FLAMMABILITY OR EXPLOSIVE PROPERTIES

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

LIMITS available

VAPOUR PRESSURE : No information available VAPOUR DENSITY No information available

20.0 °C)(68 °F) DENSITY (SPECIFIC GRAVITY) 0.936 g/mL (

SOLUBILITY

WATER SOLUBILITY : Poor

SOLVENT SOLUBILITY : Soluble in ethyl alcohol : No information available PARTITION COEFFICIENT: n-

OCTANOL / WATER (log Pow)

AUTO-IGNITION TEMPERATURE 519.8 °F) 271.0 $^{\circ}$ C

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 OTHER DATA : No information available

[10.STABILITY AND REACTIVITY]

CHEMICAL STABILITY : Stable in general. POSSIBILITY OF HAZARDOUS : No information available

REACTIONS

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CONDITIONS TO AVOID : No information available INCOMPATIBLE MATERIALS : No information available HAZARDOUS DECOMPOSITION : No information available

PRODUCTS

: No information available **OTHERS**

[11.TOXICOLOGICAL INFORMATION]

ACUTE TOXICITY

Oral

INFORMATION ON PRODUCT : Rat, LDLo : > 2000 mg/kg (LD50 > 2000 mg/kg)

Dermal

INFORMATION ON PRODUCT : Rat, LD50 : > 2000 mg/kg

Inhalation

INFORMATION ON PRODUCT : No information available

SKIN CORROSION / IRRITATION

INFORMATION ON PRODUCT : Rabbit, undiluted,

4 hours semi-occluded application test (EEC method):

Slight skin irritant

SERIOUS EYE DAMAGE / IRRITATION

INFORMATION ON PRODUCT : Rabbit, undiluted, EEC method : Category 2B

RESPIRATORY OR SKIN SENSITIZATION

RESPIRATORY

INFORMATION ON PRODUCT : No information available

SKIN

INFORMATION ON PRODUCT : Guinea pig, Guinea Pig Maximization Test : Negative

MUTAGENICITY (GERM CELL MUTAGENICITY)

INFORMATION ON PRODUCT : Ames test (TA98,TA100,TA1535,TA1537, WP2uvrA-) : Negative

> Chromosomal aberration test (CHL cells): Negative Micronucleus test (mouse bone-marrow cell): Negative

CARCINOGENICITY

INFORMATION ON PRODUCT : No information available

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

REPRODUCTIVE TOXICITY

INFORMATION ON PRODUCT : Rat, gavage, One generation reproductive toxicity, OECD 415

NOEL (maternal toxicity): 500 mg/kg/day

SPECIFIC TARGET ORGAN TOXICITY

- SINGLE EXPOSURE

INFORMATION ON PRODUCT : No information available

- REPEATED EXPOSURE

INFORMATION ON PRODUCT : Rat, 28 days repeated dose oral toxicity test :

> NOEL (no observed effect level) = 20 mg/kg/day No toxicological effect level = 140 mg/kg/day

ASPIRATION HAZARD

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

Revised Date **Kao Corporation**

[12.ECOLOGICAL INFORMATION]

ECOTOXICITY : Rainbow trout, 96h, LC50 : 4.1 mg/L (measured)

Daphnia magna, 48h, EC50: 5.9 mg/L (measured)

Algal inhibition test, OECD201, 72h,

EbC50: 5.6 mg/L (measured), ErC50: 1.2 mg/L (measured)

Fathead minnow, Early-life stage toxicity test, 33 days: NOEC 0.40 mg/L (nominal), NOEC 0.22 mg/L (measured) Prolonged toxicity to Daphnia Magna (OECD202, Part II):

EC50 = 2.4 mg/L (21 days) (measured)NOEC = 1.4 mg/L (21 days) (measured)

Algal inhibition test, OECD201, 72h, NOEC: 1.5 mg/L (measured)

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

% degradation by BOD: 3 % (28 days)

% degradation by gas chromatography: 3 % (28 days)

MOBILITY IN SOIL : No information available

BIOACCUMULATIVE POTENTIAL : Bioaccumulation test. OECD305C :

Bioaccumulation factors

Level 1 Peak A 48 - 88. Peak B 18 - 40 Level 2 Peak A 74 - 173, Peak B over 20 - 128

OTHER ADVERSE EFFECTS : No information available

[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 : Class 9 / UN3082

IATA : UN Number UN3082

> **Proper Shipping Name** Environmentally Hazardous Substance, Liquid,

n.o.s.(containing 1-(2-tert-Butyl

cyclohexyloxy)-2-butanol)

Class **Packing Group** Ш

IMDG : UN Number UN3082

> **Proper Shipping Name** Environmentally Hazardous Substance, Liquid,

> > n.o.s.(containing 1-(2-tert-Butyl

cyclohexyloxy)-2-butanol)

Class 9 Ш Packing Group

Additional Information Marine pollutant

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.

Emergency Response Guide(ERG) Numbers: 171

[15.REGULATORY INFORMATION]

Follow all regulations in your country or region.

INVENTORIES 3-4257 : ENCS(Japan)

> TSCA(USA) Yes

EINECS(EU) 412-300-2

AICS(Australia) Yes
DSL(Canada) Yes
ECL(Korea) 97-3-547
PICCS(Philippines) Yes

IECSC(China) Yes
TCSI(Taiwan) 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)

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