

MATERIAL SAFETY DATA SHEET

**VIVANTIS TECHNOLOGIES SDN BHD
REVONGEN CORPORATION CENTER**

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SECTION 1: CHEMICAL IDENTIFICATION

Catalogue Number: PC0706-500g; PC0706-1kg

Product Name: EDTA, disodium salt, dihydrate

Intended Use:

For research use only. Not for use in diagnostic procedures.

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SECTION 2: COMPOSITION/INFORMATION ON INGREDIENT

Chemical Name	CAS No.	EC No.	%
EDTA, disodium salt, dihydrate	6381-92-6	205-358-3	95-100

SECTION 3: HAZARDS IDENTIFICATION

WHIMS Classification

D1B Toxic material causing immediate and serious toxic effects Toxic by inhalation
 D2B Toxic material causing other toxic effects Chronic toxicity

GHS Classification

Acute toxicity, oral - Category 5
 Acute toxicity, inhalation - Category 4
 Specific target organ toxicity – repeated exposure, inhalation - Category 2 (Respiratory tract)

GHS Label elements, including precautionary statements



Signal word: Warning

Hazard statements

H303 May be harmful if swallowed.
 H332 Harmful if inhaled.
 H373 May cause damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapors/spray.
 P271 Use only outdoors or in a well-ventilated area.
 P304 + P340 + P312 If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call poison center/doctor if you feel unwell.
 P501 Dispose of contents/container to an approved waste disposal plant.

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HMIS Classification

Health hazard: 2
 Flammability: 0
 Physical hazards: 0

Potential Health Effects

In case of inhalation, may cause respiratory tract irritation.

In case of skin contact, may cause skin irritation.

In case of eye contact, may cause eye irritation.

In case of ingestion, may be harmful.

SECTION 4: FIRST-AID MEASURES

In case of eye contact, rinse thoroughly with plenty of water as a precaution.

In case of skin contact, wash off immediately with soap and plenty of water. Consult a physician.

In case of inhalation, move person to fresh air. If not breathing give artificial respiration. Consult a physician.

In case of ingestion, rinse mouth with water. Never give anything by mouth to an unconscious person. Consult a physician.

SECTION 5: FIRE FIGHTING MEASURES

Not flammable.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Use carbon dioxide, dry chemical, water spray or alcohol-resistant foam.

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH and full protective gear.

Hazardous decomposition products formed under fire conditions: No data available.

Flash point: No data available.

Explosion data – sensitivity to mechanical impact: No data available.

Explosion data – sensitivity to static discharge: No data available.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

For personal protection, use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

For environmental precautions, do not let product enter drains.

For cleaning up, pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

Keep containers tightly closed in a dry and well-ventilated place.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection	For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Hand protection	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Eye protection	Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin and body protection	Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Use engineering measures such as mechanical exhaust or laboratory fume hood. Wash hands before breaks and at the end of workday.

Handle in accordance with good industrial hygiene and safety practice.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colorless
Physical state:	Solid
Odor:	Odorless
Odor threshold:	No information available
Density:	No information available
pH:	4.0 - 5.5 at 10 g/l at 23 °C (73 °F)
Melting point:	248°C (478°F)
Freezing point:	248°C (478°F)
Initial Boiling point:	No information available
Boiling point:	No information available
Flash point:	100 °C (> 212 °F) - DIN 51758
Ignition temperature:	100 °C (> 212 °F)
Autoignition temperature:	No information available
Decomposition temperature:	No information available
Upper Flammability limit in air:	No data available
Lower Flammability limit in air:	No data available
Explosive properties:	No information available
Oxidizing properties:	No information available
Water solubility:	ca.100g/l at 20 °C (68 °F)
Partition coefficient (n-octanol/water):	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Evaporation rate:	No data available
Specific gravity:	No information available
Viscosity:	No information available

SECTION 10: STABILITY AND REACTIVITY

Stable under recommended storage conditions.

Materials to avoid:	Strong oxidizing agents.
Hazardous decomposition products:	Carbon oxides, nitrogen oxides, sodium oxides.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	No data available.

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SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity:

Oral LD50: Rat – > 2000 mg/kg
 Dermal LD50: -
 Inhalation LC50: -

Skin corrosion/irritation: Rabbit - No skin irritation - OECD Test Guideline 404
 Serious eye damage/eye irritation: Rabbit - No eye irritation - OECD Test Guideline 405

Respiratory or skin sensitization: No data available
 Germ cell mutagenicity: No data available
 Reproductive toxicity: No data available
 Teratogenicity: No data available
 STOT - single exposure: No data available
 STOT- repeated exposure: No data available
 Aspiration hazard: No data available

Carcinogenicity

IARC: No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Potential health effects

Inhalation Toxic if inhaled. May cause respiratory tract irritation.
 Ingestion May be harmful if swallowed.
 Skin May be harmful if absorbed through skin. May cause skin irritation.
 Eyes May cause eye irritation.

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

RTECS: AH4410000

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SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

LC50: Leuciscus idus (Golden orfe) – >500 mg/L – 96 hrs

EC50: Daphnia (Water flea) – >100 mg/L – 24 hrs
Algae – 10-100 mg/L – 72 hrs

Persistence and degradability:	Readily biodegradable
Bioaccumulative potential:	No data available
Mobility in soil:	No data available
PBT and vPvB assessment:	No data available
Other adverse effects:	Chemical Oxygen Demand (COD) 590 mg/g

SECTION 13: DISPOSAL CONSIDERATIONS

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this waste material.
For contaminated packing, dispose as waste material.

SECTION 14: TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: REGULATORY INFORMATION

WHMIS Classification

D1B Toxic material causing immediate and serious toxic effects

Toxic by inhalation

D2B Toxic material causing other toxic effects

Chronic toxicity

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

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SECTION 16: OTHER INFORMATION

The information contained in this MSDS relates only to the material(s) designed and does not relate to use(s) in combination with any other material, process(es) and /or chemical reaction(s). Vivantis Technologies Sdn. Bhd. provides this information in good faith, from sources believed to be accurate; however, Vivantis assumes no liability for its accuracy or completeness, and thus shall not be held liable for any damage resulting from handling or from contact with the above product.

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