

MATERIAL SAFETY DATA SHEET

VIVANTIS TECHNOLOGIES SDN BHD REVONGEN CORPORATION CENTER

Document No.: MSDSrev05 PC0919

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SECTION 1: CHEMICAL IDENTIFICATION

Catalogue Number: PC0919-500ml; PC0919-1L

Product Name: Tween 20

Intended Use:

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

Company Headquarters:

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Company Manufacturing:

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SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	EC No.	%
Tween 20	9005-64-5	500-018-3	95-100

Synonyms: Polyoxyethylene-20; polyoxyethylenesorbitan monolaurate; polyethylene glycol

sorbitan monolaurate

SECTION 3: HAZARDS IDENTIFICATION WHMIS Classification

Not a hazardous substance or mixture.

GHS Classification

No information available.

HMIS Classification

Health hazard: 0 Flammability: 0 Physical hazards: 0

Potential health effects

In case of eye contact, may cause eye irritation.

In case of skin contact, may be harmful if absorbed through skin and may cause skin irritation.

In case of inhalation, may be harmful and cause respiratory tract irritation.

In case of ingestion, may be harmful.

SECTION 4: FIRST-AID MEASURES

In case of eye contact, immediately flush eyes with water as a precaution.

In case of skin contact, immediately wash skin with soap and copious amount of water.

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

In case of ingestion, wash mouth with water. Never give anything by mouth to an unconscious person.









SECTION 5: FIRE FIGHTING MEASURES

Not flammable.

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

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

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

Hazardous decomposition products formed under fire conditions: Carbon oxides.

Flash point:

Explosion data – sensitivity to mechanical impact:

No data available.

No data available.

No data available.

No data available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

For personal protection, avoid breathing vapors, mist or gas.

For cleaning up, sweep up and keep in suitable, closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

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

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection Respiratory protection not required. For nuisance exposures use type

OV/AG (US) or type ABEK (EU EN 14387) 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 Use equipment for eye protection tested and approved under

appropriate government standards such as NIOSH (US) or EN

166(EU).









Skin and body protection Impervious clothing, 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 to avoid exposure. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Yellow amber Physical state: Viscous liquid

Odor:

Odor threshold:

No information available

No information available

No information available

1.095 g/mL at 25°C (77°F)

PH:

pH6-8 (50g/L, H₂O, 20°C)

Melting point:

No information available

Freezing point:

No information available

No information available

Boiling point: $>100^{\circ}\text{C} (>212^{\circ}\text{F})$

Flash point: $>110^{\circ}\text{C} (>230^{\circ}\text{F}) - \text{closed cup}$

Autoignition temperature: No data 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

Solubility: Water soluble Partition coefficient (n-octanol/water): No data available

Vapor pressure: <1.33 hPa (<1.00mmHg)

Vapor density:

Evaporation rate:

Specific gravity:

No data available
No data available

Viscosity: No information available









SECTION 10: STABILITY AND REACTIVITY

Stable under recommended storage conditions.

Materials to avoid: Strong oxidizing agents

Hazardous decomposition product: Carbon oxides
Possibility of hazardous reactions: No data available.
Conditions to avoid: No data available

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity:

Oral LD50: Rat – 40554.0 mg/kg Inhalation LC50: No data available Dermal LD50: No data available Other information: No data available

Skin: Human – mild skin irritation – 3 days

Serious eye damage or eye irritation:

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:

STOT – repeated exposure:

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.

ACGIH: No component of this product presents at levels greater than or equal to 0.1% is

identified as a carcinogen or potential carcinogen by ACGIH.









Potential health effects:

Ingestion May be harmful if swallowed.

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Skin contact May be harmful if absorbed through the skin. May cause skin irritation.

Eye contact May cause severe eye irritation.

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

RTECS: TR7400000

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish: LC50 - other fish - 350 mg/l - 24 hrs

Persistence and degradability:
Bioaccumulative potential:
Mobility in soil:
PBT and vPvB assessment:
Other adverse effects:
No data available
No data available
No data available

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose waste materials in accordance with all federal, state and local regulations.

Offer surplus and non-recyclable solutions to a licensed disposal company.

For contaminated packaging, dispose as waste materials.

SECTION 14: TRANSPORT INFORMATION DOT (US)

Not dangerous goods

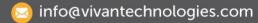
IMDG

Not dangerous goods

IATA

Not dangerous goods











SECTION 15: REGULATORY INFORMATION WHMIS Classification

Not rated.

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

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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