SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product name: 22-Tricosenoic Acid
Company: TOKYO CHEMICAL INDUSTRY CO., LTD.
Street address: 4-10-2, Nihonbashi-honcho, Chuo-ku, Tokyo 103-0023, Japan
Responsible Department: Global Business Department
Telephone: +81-3-5640-8872
Fax: +81-3-5640-8902
Product code: T1211
Revision number: 1.1

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation: Substance
Component(s): 22-Tricosenoic Acid
Percent: >95.0%(GC)
CAS Number: 65119-95-1
Chemical characterization: Chemical Formula: C_{23}H_{44}O_{2}
Notice Through Official Gazettes Reference Number
   ENCS: (2)-609
   ISHL: Official announcement chemistry substance.

3. HAZARDS IDENTIFICATION

Most important hazards
Properties affecting health: Irritating to eyes, respiratory system and skin.
Physico-chemical properties: Combustible substance. Keep away from fire.
Specific hazards: No information available.
Name of Classification: Not applicable to the criteria for classification.
(Classification standard is Japanese style)

4. FIRST AID MEASURES

Inhalation: Move to fresh air. Consult a physician.
Skin contact: Take off all contaminated clothing immediately. The area that contacted the product should be washed with cold or lukewarm running water. It should be washed thoroughly with soap. If the appearance of the exposed skin has changed or pain persists, medical treatment should be arranged.
Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Even though no acute ache nor appearance change is observed, be sure to receive a doctor's diagnosis. Some disorders may appear later on.
Ingestion: Rinse mouth. Call a physician immediately.
Protection of first-aiders: A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: dry chemical, foam, water spray, carbon dioxide.
Specific methods: Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. In case of a small fire in a confined area, movable containers should be promptly evacuated. Uninvolved persons should evacuate to a safe place. Immediately remove all sources of combustion. Measures should be taken to contain the water-discharge for fire-fighting lest those substances which affect the environment should leak.

Special protective equipment for firefighters: When extinguishing fire, be sure to wear personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc. Fire-extinguishing devices should be prepared in case of a fire.

Environmental precautions: Prevent product from entering drains.

Methods for cleaning up: Sweep dust to collect it into an air-tight vessel, taking care not to disperse it. Adhered or collected material, etc. should be promptly disposed of, in accordance with appropriate laws and regulations.

Prevention of secondary hazards: Remove all sources of ignition. Fire-extinguishing devices should be prepared in case of a fire.

7. HANDLING AND STORAGE

Handling

Technical measures: Handling is performed in a well ventilated place. Wear suitable protective equipment. Handle with care to avoid dust dispersion. Wash hands and face before breaks and immediately after handling the product.

Precautions: Handle in a local exhaust unit to prevent dust and aerosol from being generated.

Advice on safe handling: Avoid contact with skin, eyes and clothing.

Storage

Storage conditions: Seal the container air-tight and store it in a cool dark place. Keep it away from fire sources, such as fire or heat source.

Packaging material: Law is followed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures to reduce exposure: Install an airtight equipment or a local exhaust unit so that workers should not be exposed directly. Also install an equipment for washing eyes and body near the place is handled.

Control parameters: Not set up.

Personal protective equipment

Respiratory protection: A dust mask, a simple dust mask, etc.
Hand protection: Protective gloves.
Eye protection: Safety glasses. A face-shield, if the situation requires.
Skin and body protection: Protective clothing. An apron, boots, etc. according to the situation.

Special instructions for protection and hygiene: After handling, wash hands and gargle well.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical State (20 °C):

Form: Solid
Appearance: Powder
Color: White
Odor: No data available
pH: No data available

Information on changes in the physical state

Boiling Point/Range: No data available
Melting Point: 76 °C  
Flash Point: No data available  
Explosive properties  
Explosive Lower: No data available  
Explosive Upper: No data available  
Density: No data available  
Solubility: Soluble in: Benzene Chloroform

10. STABILITY AND REACTIVITY  
Stability: Stable at normal conditions.  
Reactivity: No special reactivity has been reported.  
Materials to avoid: oxidizing agents  
Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide

11. TOXICOLOGICAL INFORMATION  
Acute toxicity: No information available  
Local effects: Irritating to eyes, respiratory system and skin.

12. ECOLOGICAL INFORMATION  
Mobility: No information available  
Persistence / degradability: Chemical substance judged to have good biodegradation. (Published by Ministry of Economy, Trade and Industry)  
Degree of degradation: 93 % (by BOD), 100 % (by GC)  
Bioaccumulation: No information available

13. DISPOSAL CONSIDERATIONS  
In accordance with local and national regulations  
Wear appropriate personal protective clothing.  
If the substance is burned for disposal, it should be burned in a furnace equipped with an afterburner and a scrubber after resolving it a combustible solvent.  
Empty the contents thoroughly before disposing of a container.  
If the substance is difficult to be disposed of, (e.g. by reason that there is no waste disposal facility), it should be committed to an authorized industrial waste processing agent.

14. TRANSPORT INFORMATION  
Hazard Class: Does not correspond to the classification standard of the United Nations  
UN-No: Not Listed  
Specific precautionary transport measures and conditions: Load with care lest it should collapse, tumble, fall, or be damaged.

15. JAPANESE REGULATORY INFORMATION  
• Not applicable
16. OTHER INFORMATION

References:


The reference company name of written contents:

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This MSDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. Products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.