OTTO CHEMIE PVT LTD

201, 51-53 Maroo Bhavan, Kalbadevi, Mumbai - 400002, India. Tel : + 91 22 2207 0099 / 6638 2599 Email : info@ottokemi.com, Web : <u>www.ottokemi.com</u> _____

MATERIAL SAFETY DATA SHEET

1.Identification
1.1GHS Product identifier
Poly(vinylidene fluoride)
Code P 2067
2.Hazard identification
2.1Classification of the substance or mixture
Not classified.
2.2GHS label elements, including precautionary statements
Pictogram(s) No symbol.
Signal word No signal word.
Hazard statement(s) none
Precautionary statement(s)
Prevention none
Response none
Storage none
Disposal none
2.3Other hazards which do not result in classification
none
3.Composition/information on ingredients
3.1Substances
Chemical name Common names and synonyms CAS number EC number Concentration
poly(vinylene fluoride) poly(vinylene fluoride) 24937-79-9 none 100%
4.First-aid measures
4.1Description of necessary first-aid measures
General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact
Wash off with soap and plenty of water. Consult a physician.
In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
4.2Most important symptoms/effects, acute and delayed
no data available
4.3Indication of immediate medical attention and special treatment needed, if necessary
no data available 💦 🚽
5.Fire-fighting measures
5.1Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2Specific hazards arising from the chemical
no data available
5.3Special protective actions for fire-fighters
Wear self-contained breathing apparatus for firefighting if necessary.
6.Accidental release measures
6.1Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.
\perp vacuale personner lo sale aleas. Avoiu preatining dust. For personal protection see section o.

6.2Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. 6.3Methods and materials for containment and cleaning up Pick up and arrange disposal. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7.Handling and storage

7.1Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2. 7.2Conditions for safe storage, including any incompatibilities

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

8.Exposure controls/personal protection

8.1Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

8.2Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. 8.3Individual protection measures, such as personal protective equipment (PPE)

Eye/face 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 protection

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. 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. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Respiratory protection

Wear dust mask when handling large quantities.

Thermal hazards

no data available

9.Physical and chemical properties Physical state white powder Colour no data available Odour no data available Odour no data available Decomposition temperature no data available no data available 10.Stability and reactivity 10.1Reactivity no data available 10.2Chemical stability Stable under recommended storage conditions.
Colour no data available Odour no data available Melting point/ freezing point 166-170\u00baC Boiling point or initial boiling no data available no data available point and boiling range no data available Flammability no data available Lower and upper explosion no data available no data available no data available Lower and upper explosion no data available no data available no data available Partition temperature no data available pH no data available no data available no data available pH no data available no data available no data available pH no data available solubility no data available octanol/water (log value) 26200mmHg at 25\u00b0C Vapour pressure 26200mmHg at 25\u00b0C Density and/or relative no data available no data available no data available no data available no data available 10.Stability and reactivity no data available 10.2Chemical stability 10
Odour no data available Melting point/ freezing point 166-170\u00baC Boiling point or initial boiling no data available point and boiling range no data available Flammability no data available Lower and upper explosion no data available limit / flammability limit no data available Flash point no data available Auto-ignition temperature no data available pH no data available No data available no data available pH no data available Solubility no data available Partition coefficient n- no data available octanol/water (log value) 26200mmHg at 25\u00b0C Vapour pressure 26200mmHg at 25\u00b0C Density and/or relative no data available no data available no data available no data available no data available 10.Stability and reactivity no data available 10.2Chemical stability stability Stable under recommended storage conditions. stable under recommended storage conditions.
Melting point / freezing point 166-170\u00baC Boiling point or initial boiling no data available point and boiling range Flammability init Flash point no data available no data available Partition coefficient n- octanol/water (log value) Vapour pressure Density and/or relative density Relative vapour density Particle characteristics 10.Stability and reactivity 10.1Reactivity no data available 10.Stability and reactivity 10.2Chemical stability Stable under recommended storage conditions.
Boiling point or initial boiling no data available point and boiling range Flammability no data available no data available limit / flammability limit Flash point no data available no data available Iimit / flammability limit no data available no data available Person form no data available no data available Decomposition temperature pH no data available no data available no data available Solubility no data available no data available Vapour pressure 26200mmHg at 25\u00b0C Density and/or relative density no data available no data available 10.Stability and reactivity no data available no data available 10.Stability and reactivity no data available 10.2Chemical stability stable 10.2Chemical stability stable
Boiling point or initial boiling no data available point and boiling range Flammability no data available no data available limit / flammability limit Flash point no data available no data available Iimit / flammability limit no data available no data available Person form no data available no data available Decomposition temperature pH no data available no data available no data available Solubility no data available no data available Vapour pressure 26200mmHg at 25\u00b0C Density and/or relative density no data available no data available 10.Stability and reactivity no data available no data available 10.Stability and reactivity no data available 10.2Chemical stability stable 10.2Chemical stability stable
point and boiling range no data available Flammability no data available Lower and upper explosion no data available limit / flammability limit no data available Flash point no data available Auto-ignition temperature no data available Decomposition temperature no data available pH no data available no data available no data available octanol/water (log value) value) Vapour pressure 26200mmHg at 25\u00b0C Density and/or relative 1.74g/mLat 25\u00b0C density no data available no data available no data available no data available no data available 10.Stability and reactivity no data available 10.Stability and reactivity no data available 10.2Chemical stability stability Stable under recommended storage conditions. stability
Flammability no data available Lower and upper explosion no data available limit / flammability limit no data available Flash point no data available Auto-ignition temperature no data available Decomposition temperature no data available Decomposition temperature no data available no data available no data available Solubility no data available Particle characteristics no data available 10.Stability and reactivity no data available 10.Stability and reactivity no data available 10.2Chemical stability stability Stable under recommended storage conditions. storage conditions.
Lower and upper explosion no data available limit / flammability limit Flash point no data available Auto-ignition temperature no data available pH no data available pH no data available No data available 10.Stability and reactivity 10.1Reactivity no data available 10.2Chemical stability Stable under recommended storage conditions.
limit / flammability limit no data available Auto-ignition temperature no data available Decomposition temperature no data available pH no data available ro data available no data available pH no data available Solubility no data available Partition coefficient n- no data available octanol/water (log value) no data available Vapour pressure 26200mmHg at 25\u00b0C Density and/or relative no data available edensity no data available Particle characteristics no data available 10.Stability and reactivity no data available 10.Stability and reactivity no data available 10.2Chemical stability storage conditions.
Flash point no data available Auto-ignition temperature no data available Decomposition temperature no data available pH no data available No data available no data available pH no data available Solubility no data available Partition coefficient n- no data available octanol/water (log value) value) Vapour pressure 26200mmHg at 25\u00b0C Density and/or relative 1.74g/mLat 25\u00b0C density no data available Particle characteristics no data available 10.Stability and reactivity no data available 10.Stability and reactivity no data available 10.2Chemical stability storage conditions.
Auto-ignition temperature Decomposition temperature pH no data available no data available no data available no data available no data available no data available no data available Solubility no data available no data available no data available Partition coefficient n- octanol/water (log value) no data available Vapour pressure 26200mmHg at 25\u00b0C Density and/or relative density no data available no data available Relative vapour density Particle characteristics no data available no data available 10.Stability and reactivity 10.1Reactivity no data available no data available no data available 10.2chemical stability Stable under recommended storage conditions. storage conditions.
Decomposition temperature pH no data available no data available no data available no data available no data available no data available no data available Solubility no data available no data available Partition coefficient n- octanol/water (log value) 26200mmHg at 25\u00b0C Vapour pressure 26200mmHg at 25\u00b0C Density and/or relative density no data available no data available Particle characteristics no data available no data available 10.Stability and reactivity no data available no data available 10.2Chemical stability storage conditions.
pH no data available Kinematic viscosity no data available Solubility no data available Particle characteristics no data available 10.Stability and reactivity no data available 10.2Chemical stability stability Stable under recommended storage conditions. storage conditions.
Kinematic viscosity no data available Solubility no data available Partition coefficient n- no data available octanol/water (log value) no data available Vapour pressure 26200mmHg at 25\u00b0C Density and/or relative 1.74g/mLat 25\u00b0C density no data available Relative vapour density no data available Particle characteristics no data available 10.Stability and reactivity no data available 10.1Reactivity no data available 10.2Chemical stability storage conditions.
Solubility no data available Partition coefficient n- no data available octanol/water (log value) 26200mmHg at 25\u00b0C Vapour pressure 26200mmHg at 25\u00b0C Density and/or relative 1.74g/mLat 25\u00b0C density no data available Particle characteristics no data available 10.Stability and reactivity no data available 10.IReactivity no data available 10.2Chemical stability Stable under recommended storage conditions.
Partition coefficient n- octanol/water (log value) no data available Vapour pressure 26200mmHg at 25\u00b0C Density and/or relative density 26200mmHg at 25\u00b0C Relative vapour density Particle characteristics no data available no data available 10.Stability and reactivity no data available 10.IReactivity no data available available 10.2Chemical stability storage conditions.
octanol/water (log value) 26200mmHg at 25\u00b0C Vapour pressure 26200mmHg at 25\u00b0C Density and/or relative 1.74g/mLat 25\u00b0C density no data available Particle characteristics no data available 10.Stability and reactivity no data available 10.Stability and reactivity no data available 10.2Chemical stability Stable under recommended storage conditions.
Vapour pressure 26200mHg at 25\u00b0C Density and/or relative 1.74g/mLat 25\u00b0C density no data available Particle characteristics no data available 10.Stability and reactivity no data available 10.1Reactivity no data available 10.2Chemical stability Stable under recommended storage conditions.
Density and/or relative 1.74g/mLat 25\u00b0C density Relative vapour density no data available no data available 10.Stability and reactivity 10.1Reactivity no data available 10.2Chemical stability Stable under recommended storage conditions.
density no data available Relative vapour density no data available Particle characteristics no data available 10.Stability and reactivity no data available 10.1Reactivity no data available 10.2Chemical stability stable under recommended storage conditions.
Relative vapour density no data available Particle characteristics no data available 10.Stability and reactivity 10.1Reactivity 10.1Reactivity no data available 10.2Chemical stability Stable under recommended storage conditions.
Relative vapour density no data available Particle characteristics no data available 10.Stability and reactivity 10.1Reactivity 10.1Reactivity no data available 10.2Chemical stability Stable under recommended storage conditions.
Particle characteristics no data available 10.Stability and reactivity 10.1Reactivity no data available 10.2Chemical stability Stable under recommended storage conditions.
10.Stability and reactivity 10.1Reactivity no data available 10.2Chemical stability Stable under recommended storage conditions.
10.1Reactivity no data available 10.2Chemical stability Stable under recommended storage conditions.
10.1Reactivity no data available 10.2Chemical stability Stable under recommended storage conditions.
no data available 10.2Chemical stability Stable under recommended storage conditions.
10.2Chemical stability Stable under recommended storage conditions.
Stable under recommended storage conditions.
10.3Possibility of hazardous reactions
no data available
10.4Conditions to avoid
no data available
10.5Incompatible materials
no data available
10.6Hazardous decomposition products
no data available
11.Toxicological information
Acute toxicity

Oral: no data available Inhalation: no data available Dermal: no data available Skin corrosion/irritation no data available Serious eye damage/irritation no data available Respiratory or skin sensitization no data available Germ cell mutagenicity no data available Carcinogenicity no data available Reproductive toxicity no data available STOT-single exposure no data available STOT-repeated exposure no data available Aspiration hazard no data available 12. Ecological information 12.1Toxicity Toxicity to fish: no data available Toxicity to daphnia and other aquatic invertebrates: no data available Toxicity to algae: no data available Toxicity to microorganisms: no data available 12.2Persistence and degradability no data available 12.3Bioaccumulative potential no data available 12.4Mobility in soil no data available 12.50ther adverse effects no data available 13.Disposal considerations 13.1Disposal methods Product The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems. Contaminated packaging Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials. 14.Transport information 14.1UN Number ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods. 14.2UN Proper Shipping Name ADR/RID: unknown IMDG: unknown IATA: unknown 14.3Transport hazard class(es) ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods. 14.4Packing group, if applicable ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods. 14.5Environmental hazards ADR/RID: no IMDG: no IATA: no 14.6Special precautions for user no data available 14.7Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code no data available 15.Regulatory information 15.1Safety, health and environmental regulations specific for the product in question Chemical name Common names and synonyms CAS number EC number poly(vinylene fluoride) poly(vinylene fluoride) 24937-79-9 none

Not Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS)

EC Inventory	Not Listed.
United States Toxic Substances Control Act (TSCA) Inventory	Listed.
China Catalog of Hazardous chemicals 2015	Not Listed.
New Zealand Inventory of Chemicals (NZIoC)	Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Listed.
Vietnam National Chemical Inventory	Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)	Listed.

Section 16: Other Information This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

