Kao Corporation

Enriching lives,
in harmony with nature.

GLOBAL PRODUCT STRATEGY SAFETY SUMMARY

TRIMEX N-08NB

This document is a high-level summary intended to provide the general public with an overview of product safety for this substance. It is not intended to replace the Safety Data Sheet, which is available from suppliers and should be referred to for full details of recommended safety procedures for each type of use. It is not intended to replace or supersede manufacturer's instructions and warnings for their consumer products containing this substance.

1. Substance Identity

Brand Name: TRIMEX N-08NB

Chemical Name: 1,2,4-Benzenetricarboxylic acid, decyl and octyl triester

CAS Number: 67989-23-5

2. Uses and Applications

TRIMEX N-08NB is a plasticiser of Trimellitate base for synthetic resins. It is used in tubes and cables and others.

For the industrial use, TRIMEX N-08NB is widely used for the production of PVC compounds, formulation of lubricants and inks, cable compounding and application, sealing inlays and adhesives.

3. Physical/Chemical Properties

TRIMEX N-08NB has no identified physicochemical hazards.

Property	Value
Physical state	Viscous liquid
Colour	Pale yellow clear

Odour	Almost odourless
pH	No data available
Density (Specific gravity)	0.982 g/cm^3 (20°C) (68°F), 0.974 g/cm^3 (30°C) (86°F), 0.967 g/cm^3 (40°C) (104°F)
Melting point	No information available
Boiling point	430 °C (806°F)
Flash point	278 °C (532.4°F) (CLEVELAND open cup method)
Flammability or Explosive properties	UPPER LIMIT: No information available LOWER LIMIT: No information available
Auto – ignition temperature	No information available
Vapour pressure	No information available
Water solubility	Insoluble
Octanol-water partition coefficient (log K_{ow})	No information available
Viscosity	120 mPa·s (20 °C) (68°F), 45 mPa·s (40 °C) (104°F), 20 mPa·s (60 °C) (140°F)

4. Human Health Safety Assessment

Based on the available data, TRIMEX N-08NB does not pose any hazards to human.

Effect Assessment	**Result**
Acute Toxicity oral/ dermal	No acute toxicity after oral/ dermal exposure in practical use The substance does not cause damage to any organs following single exposure
Irritation skin/ eye	Based on the available data not considered to be irritating to skin or eyes
Sensitization	Based on the available data not considered to cause allergic skin reaction
Toxicity after repeated exposure	Unlikely to cause any toxic effects through prolonged or repeated oral exposure in practical use
Mutagenicity	Based on the available data not considered to cause genetic defects
Carcinogenicity	Based on the available data not considered to cause cancer
Toxicity for reproduction	Based on the available data not considered to be damaging to fertility or the unborn child

5. Environmental Safety Assessment

Based on the available information, TRIMEX N-08NB is not expected to cause toxicity to aquatic organisms under test conditions. TRIMEX N-08NB is unlikely to persist in the environment because of showing inherently biodegradability. TRIMEX N-08NB is unlikely to cause bioaccumulation by the food chain, because TRIMEX N-08NB is not PBT/ vPvB.It has inherently biodegradability.
The chemical does not accumulate in the food chain, because TRIMEX N-08NB is not PBT/ vPvB.

Effect Assessment	**Result**
Aquatic Toxicity	No adverse effects observed in the range of the substances water solubility
Biodegradation	Inherently biodegradable
PBT/ vPvB conclusion*	Not bioaccumulating in organisms and not toxic, hence not considered a PBT or vPvB substance.

*PBT=Persistent, Bioaccumulative and Toxic
vPvB=Very Persistent and Very Bioaccumulative

6. Exposure

Consumer

The consumer can come into contact with the substance in use of plastic articles as tubes and cables, but the concentration of TRIMEX N-08NB in use is below the level which would give rise harmful effects of concern. When it's used as the recommended use, TRIMEX N-08NB does not pose a risk to consumer.

Worker:

The exposure can occur either in TRIMEX N-08NB manufacturing facilities or in the various industrial facilities when TRIMEX N-08NB is used. Those workers in industrial operations during maintenance, sampling, testing, or other procedures could be exposed with TRIMEX N-08NB. Only qualified and trained workers handle the undiluted substance. The manufacturing facilities offer thorough training program for employees and appropriate work processes, as well as safety equipment (goggles and gloves) in place to present an unnecessary exposure. Safety showers and eye-wash stations are accessible nearby. Workers are required to be trained in accordance with the safety measures in the Safety Data Sheet.

Environment:

The manufacture of TRIMEX N-08NB is a closed and automated process with no aqueous effluent neither gaseous effluent released to the environment. TRIMEX N-08NB is not considered to pose an unacceptable risk for the environment. It will be removed efficiently during waste water treatment processes. Insignificant amounts that may reach surface water will not exist in the environment for extended time periods.

7. Risk management recommendations

When you use the substance, make sure to be measured the adequate ventilation. Always wear appropriate eye protection equipment. Do not eat, drink or smoke where the substance is handled, processed or stored. Wash hands and skin after contact with the substance. If the substance gets into your eyes, rinse your eyes thoroughly for several minutes. If you wear contact lens, and you can take it off easily, take it off and continue to rinse your eyes. If skin irritation or eye irritation persists, get medical advice/attention.

Waste water containing the substance must be passed the waste water treatment plants in order to remove the substance. No specific measures are needed, because it is not expected to be released into the air.

8. Regulatory Information / Classification and Labeling

Under GHS classification chemical substances are classified in hazards for physical properties, human health and environment. The hazard information for industrial products are transmitted via specific labels and Safety Data Sheet. GHS offers the standardization for hazard communication. The subjects who could be assumed to be exposed to the substance, workers, consumers, transport workers, and emergency responders, can better understand the hazards of the chemicals in use through the transmission..

Classification and labeling information

The substance is not classified for any harmful effects to human or the environment.

The laws of manufacturing, sale, transport, use and disposal are different among countries or areas. Details are referred to Safety Data Sheet provided by the supplier.

9. Conclusion

TRIMEX N-08NB is not classified as hazardous for human health or the environment. Further, as a result of the PBT/vPvB assessment it is found that the substance is not considered to be a PBT/vPvB.
Therefore, it is considered that TRIMEX N-08NB gives rise no hazardous effects to human health and the environment.

10. Contact information within company

For further information on this substance or product safety summaries in general, please contact:

Name	Kao Corporation, Global Chemical Business
Telephone number	+81-3-5630-7700
Fax number	+81-3-5630-7889
E-mail address	chemical@kao.co.jp

Additional information can be found at the International Council of Chemical Associations portal, found at http://www.icca-chem.org/.

11. Glossary

Acute Toxicity	Adverse effects that result from a single exposure
Biodegradation	Biological degradation of a substance in environments
Bioaccumulation	Accumulation of substances in environments
Carcinogenicity	Action influence to cause a cancer
Toxicity after repeated exposure	Adverse effects that result from repeated exposure
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
Hazard	Hazardous property for human health or environments
Mutagenicity	Effects to induce gene mutations
Toxicity for reproduction	Adverse effects for teratogenicity, embryotoxicity, and reproductivity
Sensitization	Inducibility of allergy

12. Date of Issue

December 22, 2017