



SAFETY DATA SHEET

TOYALNITE® TFZ-N15P

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1. Identification

Product Name : ALUMINIUM NITRIDE POWDER TFZ-N15P
Name of manufacture : TOYO ALUMINIUM K.K
Address : MIDOSUJI DAIWA BLDG, 6-8, KYUTAROMACHI 3-CHOME, CHUO-KU, OSAKA, 541-0056, JAPAN
Telephone Number : 81-66271-3154
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Emergency : TOYO ALUMINIUM K.K HINO WORKS
" [Address] : 341-14,HIGASHIYAMA, OHTANI, HINO-CHO, GAMO-GUN, SHIGA, JAPAN. 529-1608
" [Telephone Number] : 81-748-53-1151
" [FAX Number] : 81-748-53-0316
Name of section : QUALITY ASSURANCE Dept. (HINO)
Recommended use : For fillers

2. Hazard identification

GHS Classification : Not Classification
GHS Label elements : Not Classification
Environmental Hazards : Ammonia is generated as decomposition products.

3. Composition/information on ingredients

Classification of the substance or mixture : Substance

Chemical Name	Composition (%)	CAS No.
Aluminium Nitride	> 96.0	24304-00-5

4. First-aid measures

IF INHALED : In case of inhalation of small amount of powder, wash nostrils and throat with clear water.
In case of inhalation of large amount of powder, call a physician immediately.
IF ON SKIN : Remove contaminated clothing and wash skin with soap and water.
IF IN EYES : Flush eyes with clear water for minutes or until irritation subsides.
Call a physician if irritation persists.
IF SWALLOWED : Do not induce vomiting. Call a physician immediately.

5. Fire-fighting measures

Aluminium nitride itself is nonflammability.

Extinguishing Media : —
Prohibition extinguishing media : When aluminium nitride is in the place from which the fire is started, it is based on irrigation fire extinguishing and a halogen system fire extinguisher.
Do not make fire extinguishing absolute.
Unusual fire & explosion hazards : —
Special fire fighting procedures : —
Worker's protection : Wear complete protective wear (heatproof) including an appropriate compressed air open-circuit SCBA when you work extinguishing fire.

6. Accidental release measures

- Personal precautions, Protect equipment and Emergency procedures : In an indoor case, fully ventilate until processing of a leakage thing finishes, and wear required protective equipment for measure of leakage. Follow "8. Exposure controls/personal protection"
- Environmental precautions : In an indoor case, fully ventilate until processing finishes.
- Methods and materials for Containment and cleaning up : Avoiding raising dust, sweep up it, and keep it in an airtight container. Follow "13. Disposal considerations"
- Preventive measures of second disaster : Remove all sources of ignition promptly and pour water on leakage or its container.

7. Handling and storage

【Handling】

- Technical measure : Do not let contact with damp air, water, or liquid containing water.
: During handling, prevent from touching the skin as much as possible, and wear an dustproof mask, a protective glove, etc.
: Use after opening promptly.
- Local-ventilation／
Whole-ventilation : Install local-ventilation in handling workplace.
- Notes : Make the floor in the handling place a structure that water is infiltrated or doesn't infiltrate the floor side.
- Sanitary requirement : Do not eat and drink or do not smoke when you use this product.

【Storage】

- Appropriate condition : Do not keep it in the air saturated with moisture, water, liquid including the water.
: Seal up container storage indoors that kept suitable temperature and humidity, shading, and ventilated.
: Make the floor in the strong place a structure that water is infiltrated or doesn't infiltrate the floor side.
: Keep it in the place where child's hand does not reach.
- Packing materials : No useful information.

8. Exposure controls/personal protection

【Protective equipment】



- Respiratory protection : Use mask for dustproof mask.
- Hand protection : Use protective glove.
- Eye protection : Use safety goggles or glasses.
- Skin and body protection : Use antistatic working clothes.

Facility and equipment measures : Fully ventilate a workplace, and install equipment of local ventilation.

Chemical Name	Unit	ACGIH		OSHA
		TWA	STEL	PEL
Aluminium Nitride		No Data		
【Reference】 Ammonia	ppm	25	35	

(※) TWA : Load average of time STEL : Short-term exposure limit (15 minutes)
 PEL : For eight hours load average or ceiling value

9. Physical and chemical properties

Appearance	: Yellow-white powder	Explosive limits (Upper)	: —
Odour	: Ammonia odour	" (Lower)	: —
Threshold odour	: No Data	Vapor pressure	: No Data
pH	: No Data	Vapor density (air=1)	: No Data
Melting point (°C)	: No Data	Specific gravity	: 3.26
Boiling point (°C)	: No Data	Solubility	: Not soluble
Flash point (°C)	: No Data	Octanol/water partition coefficient	: Not applicable
Evaporation rate	: Not applicable	Ignition point (°C)	: No Data
Burning quality (Solid)	: No Data	Decomposition temperature	: 2,250
" (gas)	: No Data	Viscosity	: Not applicable

10. Stability and reactivity

Stability	: In the usual use, it is stable. However, after particulates have risen, there is possibility of dust explosion.
Possibility of Hazardous reactions	: Ammonia gas is generated. (When contact with the air saturated with moisture, water and liquid including the water)
Conditions to avoid	: Water、Moisture、Acid、Alkali
Incompatible materials	: Oxidant、Hydrochloric acid、Alcohol …etc

11. Toxicological information

Acute toxicity – Oral	: No Data
Acute toxicity – Skin	: No Data
Acute toxicity – Inhalation (Gas)	: No Data
Acute toxicity – Inhalation (Vapor)	: No Data
Skin corrosion/Irritation	: No Data
Serious eye damage/Eye irritation	: No Data
Respiratory sensitization	: No Data
Skin sensitization	: No Data
Germ cell mutagenicity	: No Data
Carcinogenicity	: No Data
Reproductive toxicity	: No Data
Specific target organ systemic toxicity (single)	: No Data
Specific target organ systemic toxicity (repeated)	: No Data
Aspiration hazard	: No Data

12. Ecological information

Ecotoxicity	: No Data
Residual/Degradability	: No Data
Bioaccumulation potential	: No Data
Hazardousness in soil	: No Data
Hazardousness on the ozone layer	: No Data
Aquatic toxicity (acute)	: No Data
Aquatic toxicity (chronic)	: No Data

13. Disposal considerations

- Remainder waste : Render it harmless as much as possible and change a dangerous hazardous property level into a low state, before discarding.
- : Follow the standard of related laws and regulations and a local government about disposal.
- : When the industrial waste treatment company and municipal corporation which were approved by the governor etc. are disposing, dispose after consulting with them.
- : When you entrust disposal of waste to a processing contractor etc., fully notify them of danger or hazardous property, and entrust disposal.
- Pollution container and Packing : Purify and recycle the container or perform suitable disposal in accordance with the standard of related laws and regulations or a local government.
- : When you discard an empty container, dispose of a content completely.

14. Transport information

【International transport information】

UN number : Not Restricted

UN classification : Not Restricted

Marine pollutant : Not Restricted

Air transport (IATA/ICAO)

Not classified as a dangerous good under transport regulations.

Specific measures for safe transport

Ensure appropriate measures to prevent loading damage due to heavy load of packaging materials.

Concern about avoiding injury on the slippery floor when contents in the package scatter.

15. Regulatory information

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

16. Other information

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| Reference | : Preparation guideline of Material Safety Data Sheet | Japan Chemical industry Association |
| | : Guidebook of Product Liability Act | Japan Paint Manufacturers Association |
| | : Statute book of chemicals | The Chemical Daily Co., Ltd. |
| | : 13700 Chemicals | The Chemical Daily Co., Ltd. |
| | : Quick understanding of business for MSDS・Label | Japan Environmental Management Association for Industry |

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