

SAFETY DATA SHEET**1. Chemical product and company identification**

Product Name	Cactus normal paraffin N-12D
Product code	CHS03
Company Name	JXTG Nippon Oil & Energy Corporation
Address	1-2, Otemachi 1-chome, Chiyoda-ku Tokyo 100-8162 Japan
Phone	+81-(0)3-6257-7360
Fax	+81-(0)3-6213-3498
Contact	Normal Paraffin & LAB Group, Aromatics Dept., Chemicals Division

2. Hazards identification**GHS Classification**

Physical hazards	Flammable liquids	Category 4
Health Hazards	Acute toxicity(oral)	Not classified.
	Skin corrosion/irritation:	Category 2
	Serious eye damage/eye irritation	Not classified.
	Aspiration hazard	Category 1

GHS-labeling

Signal word	Danger
Hazard statement	Combustible liquid . Causes skin irritation. May be fatal if swallowed and enters airways.
Precautionary statement	
Prevention	Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Wash skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
Response	In case of fire: Use foam, dry chemical or carbon dioxide(CO ₂) for extinction. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. IF ON SKIN: Wash with plenty of soap and water. Do NOT induce vomiting. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing. And wash it before reuse.
Storage	Store in well-ventilated place. Keep cool. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition/information on ingredients

Substance	CAS #	Content
Components		
n-Dodecane	112-40-3	≥ 98%

4. First aid measures

First aid procedures	Keep warm by blanket and keep at rest after first aid. Get medical attention promptly.
Inhalation	Move injured person into fresh air and keep person calm under observation.

	Get medical attention if any discomfort continues.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention promptly if symptoms occur after washing. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.
Eye contact	Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids wide apart. Get medical attention if irritation develops and persists .
Ingestion	Rinse mouth thoroughly. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention immediately.
Expected acute symptoms and delayed symptoms	Repeated exposure may cause skin dryness or cracking
Personal protection for first-aid responders	First aid personnel must be aware of own risk during rescue
Notes to physician	Be aware that symptoms of chemical pneumonia (shortness of breath) may occur several hours after exposure.

5. Fire-fighting measures

Extinguishing media	Extinguish with foam, carbon dioxide, or dry powder.
Extinguishing media to avoid	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards	The product is flammable, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.
Specific firefighting method	Move containers from fire area if you can do it without risk. Use water spray to cool unopened containers. Cool containers exposed to flames with water until well after the fire is out
Protection of fire-fighting Personnel	Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal safety precautions	Stay upwind. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Avoid inhalation of vapors/spray and contact with skin and eyes. Wear appropriate personal protective equipment. For personal protection, see section 8 of the MSDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground. Contact local authorities in case of spillage to drain/aquatic environment.
Recovery, neutralization	Remove sources of ignition. Stop the flow of material, if this is without risk. Absorb spillage with non-combustible, absorbent material.
Clean-up methods and materials and containment measures	Stop leakage if safe to do so. Ground/bond all equipment used to handle the leaked substance. Vapor suppression foam is used to reduce the vapor concentration. Use clean antistatic equipment when gathering absorbed material.
Prevention of secondary hazards	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

7. Handling and storage

Handling	
Engineering measures	Use non-sparking tools and explosion-proof equipment. Provide adequate general and local exhaust ventilation.
Safety handling precautions	Avoid inhalation of vapors and spray mist and contact with skin and eyes. Avoid heat, sparks, open flames and other ignition sources. The product is flammable, and heating may generate vapors which may form explosive vapor/air mixtures.

	Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Contact avoidance	Oxidant
Storage	
Engineering measures	Provide adequate ventilation.
Storage conditions	Keep away from heat, sparks and open flame. Keep containers tightly closed in a cool, well-ventilated place. Ground container and transfer equipment to eliminate static electric sparks..
Incompatible material	Oxidizing agent. Strong bases. Reducing agents
Container/packaging materials	Use containers designated by the applicable law and the U.N. transportation regulations.

8. Exposure controls/personal protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Engineering measures	Provide adequate ventilation and minimize the risk of inhalation of vapors and mists. Use explosion-proof equipment.
Protective equipment	
Respiratory protection	In case of inadequate ventilation, use suitable respiratory equipment with gas filter for organic gas.
Hand protection	Wear protective gloves. Chemical/oil resistant gloves are recommended. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.
Eye protection	Wear approved safety goggles.
Skin and body protection	Wear special protective clothing. Chemical/oil resistant clothing is recommended.
Hygienic measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	
Physical state	Liquid.
Form	Liquid.
Color	Transparent, colorless.
Odor	Slight paraffinic.
Odor threshold	Not available.
Melting point/ Freezing point	- 7.5°C
pH	Not available.
Boiling point	209 - 212°C
Flammability limits in air, lower, % by volume	0.7%
Flammability limits in air, upper, % by volume	5.5 %
Flash point	86 °C
Autoignition temperature	200 °C
Density	0.753g/cm ³ (15°C)
Solubility	Water 0.05(mg/L) (27°C)
n-octanol/water partition coefficient	6.80
Vapor pressure	Not available.
Vapor density	5.9 (Air=1)
Kinetic viscosity	1.383(mPa · s) (25°C)

10. Stability and reactivity

Stability	Stable at normal conditions.
Possibility of hazardous reactions	Keep away from any possible contact with strong oxidizing agents.
Conditions to avoid	Contact with incompatible hazard substances Prolonged heating, open flames, and ignition sources
Contact avoidance	Use care to keep away from any possible contact with halogens, strong acids, alkalis, and acidifying substances.
Hazardous decomposition products	When burnt, may release carbon monoxide and other gases.

11. Toxicological information

Acute toxicity	Oral, rat	LD ₅₀ >20 mL/kg (Rat)
	Inhalation	LD ₅₀ >200ppm (Rat)
	Dermal	No sufficient information
Skin corrosion / irritation	Severe	
Respiratory sensitizer	No data available.	
Skin sensitizer	No data available.	
Germ cell mutagenicity	Negative in Ames	
Toxic to reproduction	No data available.	
Specific target organ toxicity (Single exposure)	No data available.	
Specific target organ toxicity (Repeated exposure)	No data available. May be fatal if swallowed and enters airways. (Category 1)	
Aspiration hazard	A kinematic viscosity < 20.5mm ² /s, measured at 40°C.	

12. Ecological information ^{d)}

Ecotoxicity	
Acute aquatic toxicity	No data available.
Chronic aquatic toxicity	No data available.
Persistence and degradability	No data available
Bioaccumulation	No data available.
Mobility in soil	No data available
Other hazardous effect	No data available

13. Disposal considerations

Residual contents	Dispose of in accordance with local regulations.
Contaminated containers and packaging	Since emptied containers retain product residue, follow label warnings even after container is empty.

14. Transport information**IATA**

UN No.	Not relevant
Proper shipping name	Not relevant
Hazard class	Not relevant
Packing group	Not relevant

IMDG

UN No.	Not relevant
Proper shipping name	Not relevant

Hazard class	Not relevant
Packing group	Not relevant
EmS No.	Not relevant
Marine pollutant	Not relevant

15. Regulatory information

Comply with applicable laws and regulations.

16. Other information

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