

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

<b>Product Name</b>	Cactus normal paraffin N-10
<b>Product code</b>	CHS01
<b>Company Name</b>	JXTG Nippon Oil & Energy Corporation
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**2. Hazards identification****GHS Classification**

<b>Physical hazards</b>	Flammable liquids	Category 3
<b>Health Hazards</b>	Skin corrosion/irritation:	Category 2
	Aspiration hazard	Category 1
<b>Environmental Hazards</b>	Acute aquatic hazard	Category 1
	Long-term aquatic hazard	Category 1

**GHS-labeling****Signal word**

Danger

**Hazard statement**

Flammable liquid and vapour.  
Causes skin irritation.  
May be fatal if swallowed and enters airways.  
Very toxic to aquatic life  
Very toxic to aquatic life with long lasting effects.

**Prevention**

Keep away from heat/sparks/open flames/hot surfaces – No smoking.  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/lighting equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Wash skin thoroughly after handling  
Avoid release to the environment.  
Wear protective gloves/protective clothing/eye protection/face protection.

**Response**

In case of fire: Use foam, dry chemical or carbon dioxide(CO2) for extinction.  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
IF ON SKIN: Wash with plenty of soap and water.  
IF ON SKIN(or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
Do NOT induce vomiting.  
If skin irritation occurs: Get medical advice/attention.  
Take off contaminated clothing. And wash it before reuse.  
Collect spillage.

**Storage**

Store in well-ventilated place. Keep cool.

**Disposal**

Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

**3. Composition/information on ingredients**

Substance

Components	CAS #	Content
n-Decane	124-18-5	≥ 98.0%

#### 4. First aid measures

<b>First aid procedures</b>	Keep warm by blanket and keep at rest after first aid. Get medical attention promptly.
<b>Inhalation</b>	Move injured person into fresh air and keep person calm under observation. Get medical attention if any discomfort continues.
<b>Skin contact</b>	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.
<b>Eye contact</b>	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 .
<b>Ingestion</b>	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.
<b>Expected acute symptoms and delayed symptoms</b>	Repeated exposure may cause skin dryness or cracking
<b>Personal protection for first-aid responders</b>	First aid personnel must be aware of own risk during rescue
<b>Notes to physician</b>	Be aware that symptoms of chemical pneumonia (shortness of breath) may occur several hours after exposure.

#### 5. Fire-fighting measures

<b>Extinguishing media</b>	Extinguish with foam, carbon dioxide, or dry powder.
<b>Extinguishing media to avoid</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards</b>	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.
<b>Specific firefighting method</b>	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
<b>Protection of fire-fighting Personnel</b>	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

<b>Personal safety precautions</b>	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.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground. Contact local authorities in case of spillage to drain/aquatic environment.
<b>Recovery, neutralization</b>	Remove sources of ignition. Stop the flow of material, if this is without risk. Absorb spillage with non-combustible, absorbent material.
<b>Clean-up methods and materials and containment measures</b>	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.
<b>Prevention of secondary hazards</b>	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** Colorless liquid.

**Physical state** Liquid.

**Form** Liquid.

**Odor** Slight paraffinic.

**Odor threshold** Not available.

**Melting point/  
Freezing point** - 30°C

**pH** Not available.

**Boiling point** 169 - 173 °C

**Flammability limits in air,  
lower, % by volume** 0.8%

**Flammability limits in air,  
upper, % by volume** 5.5 %

**Flash point** 53 °C

**Autoignition temperature** 218 °C

**Density** 0.734g/cm<sup>3</sup> (15°C)

**Solubility** Water 0.05(mg/L) (27°C)

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<b>n-octanol/water partition coefficient</b>	5.01
<b>Vapor pressure</b>	100 Pa (16.7°C)
<b>Vapor density</b>	4.9 (Air=1)

## 10. Stability and reactivity

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

## 11. Toxicological information

<b>Acute toxicity</b>	Oral, rat Inhalation Dermal	LD <sub>50</sub> >2,000 mg/kg LD <sub>50</sub> >51.1mg/L (mouse) LD <sub>50</sub> >2,000 mg/kg (Rat)
<b>Skin corrosion / irritation</b>	Based on a result of "slightly irritating" in a rabbit test (OECD TG404 (GLP)) (IUCLID (2000)) and "slightly irritating" in another rabbit test (Directive 84/449/EEC, B.4) where the maximum mean score was 1.5 for erythema at 72-hour after application (IUCLID (2000)), the substance was classified as "Category 2.	
<b>Serious eye damage / eye irritation</b>	Based on results of "not irritating" in a rabbit test (OECD TG405 (GLP)) where maximum mean score was 1 for conjunctiva at 24 and 48-hour after application (IUCLID (2000)) and "not irritating" in another rabbit test (Directive 84/449/EEC, B.5) where maximum mean score was 1 for conjunctiva at 24-hour after application (IUCLID (2000)), the substance was classified as "Not classified".	
<b>Respiratory sensitization</b>	No data available.	
<b>Skin sensitization</b>	No data available.	
<b>Germ cell mutagenicity</b>	No data available.	
<b>Carcinogenicity</b>	No data available.	
<b>Reproductive toxicity</b>	No data available.	
<b>Specific target organ toxicity (Single exposure)</b>	No data available.	
<b>Specific target organ toxicity (Repeated exposure)</b>	No data available.	
<b>Aspiration hazard</b>	This substance was classified as Category 1 because it was a hydrocarbon having the coefficient of kinematic viscosity of < 7 mm <sup>2</sup> /s at 40 degrees centigrade (GESTIS (Access on Aug. 2010)), namely, 20.5 mm <sup>2</sup> /s or less. As relevant information, it was reported in the human case that direct aspiration into the lungs of paraffin's with carbon numbers C6 to C16 may cause chemical pneumonitis, pulmonary edema and hemorrhaging (HSDB (2003))	

## 12. Ecological information <sup>d)</sup>

<b>Ecotoxicity</b>	
<b>Acute aquatic toxicity</b>	Classified into Category 1 from its 48h-EC50 = 0.029 mg/L for crustacea (Daphnia magna) (Test for the Ecological Effect of Chemical Substances (Ministry of the Environment), 2004).
<b>Persistence and degradability</b>	Readily biodegradable
<b>Bioaccumulation</b>	See Section 5.01 for log Kow
<b>Mobility in soil</b>	No data available

**Other hazardous effect** No data available

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### 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.

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### 14. Transport information

**International regulations**  
**Marine regulation** Follow the IMO regulations.  
**UN No.** 2247  
**Proper Shipping Name** Decane  
**UN classification** Class 3 (Flammable liquid, P.G. III)  
**Air regulation** Follow the ICAO/IATA regulations.

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### 15. Regulatory information

Comply with applicable laws and regulations.

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### 16. Other information

**References**  
Model SDS, Japan Advanced Information center of Safety and Health  
Data base of GHS classification, National Institute of Technology and Evaluation (NITE)  
(<http://www.safe.nite.go.jp/ghs/ghsi.html>)

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