

# SAFETY DATA SHEET

SDS No.1050-0019

Date

August 20, 2019

1/5 page

## 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : Ascarite II  
NAME OF SUPPLIER : GL Sciences Inc.  
ADDRESS : 22-1 Nishishinjuku 6-chome Shinjuku-ku Tokyo 163-1130, Japan  
CHARGE SECTION : International Sales Section  
TELEPHONE No. : +81-3-5323-6620  
FACSIMILE No. : +81-3-5323-6621  
PRODUCT No. : 1050-32300, 1050-32310, 1050-  
SDS No. : 1050-0019  
Research use only.

## 2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION : Skin corrosion/irritation : Category 1  
Serious eye damage/eye irritation : Category 1  
Specific target organ toxicity  
(Single exposure) : Category 1(respiratory system)  
Hazardous to the aquatic environment - Acute  
: Category 3

### LABEL ELEMENTS

#### HAZARD SYMBOL



SIGNAL WORD : Danger

#### HAZARD STATEMENTS

H314 Causes severe skin burns and eye damage  
H318 Cause serious eye damage  
H370 Causes damage to organs < central nervous system, respiratory system, Cardiovascular system, blood system, liver, kidney, gastrointestinal tract >  
H402 Harmful to aquatic life

#### PRECAUTIONARY STATEMENTS :

##### [Prevention]

P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
P264 Wash hands thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

##### [Response]

P310 Immediately call a POISON CENTER or doctor.  
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN or hair: Take off immediately all contaminated clothing. Rinse skin with water.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308+P311 IF exposed or concerned: Call a POISON CENTER or doctor.  
P363 Wash contaminated clothing before reuse.

##### [Storage]

P405 Store locked up.

##### [Disposal]

P501 Dispose of contents/container in accordance with all applicable regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Single Substance or Mixture : Mixture

CHEMICAL NAME	CONTENT	CHEMICAL FORMULA	CAS RN.	TSCA INVENTORY	EINECS No.
Sodium Hydroxide	90 - 95 %	NaOH	1310-73-2	Listed	215-185-5
Vermiculite	5 - 10 %	(Mg,Fe) <sub>3</sub> (Si,Al,Fe) <sub>4</sub> O <sub>10</sub> (OH) <sub>2</sub> ·4H <sub>2</sub> O	1318-00-9	N/A	N/A

4. FIRST AID MEASURES

- GENERAL ADVICE** : Wash off immediately with soap and plenty of water. In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit. Use personal protective equipment.
- INHALATION** : Move victim to fresh air and gargle. If breathing is difficult, give oxygen. Consult a physician immediately.
- SKIN CONTACT** : Remove contaminated clothes and shoes, rinse skin with plenty of water or shower. Use soap to help assure removal. Consult a physician immediately.
- EYE CONTACT** : Remove any contact lenses at once. Flush eyes well with flooding large amounts of running water for at least 15 minutes. Assure adequate flushing by separating the eyelids with sterile fingers. Consult a physician immediately.
- INGESTION** : Rinse mouth, give plenty of water to vomit. Never give anything by mouth to an unconscious person. Consult a physician.
- MOST IMPORTANT SYMPTOMS/**  
affects, acute and delayed : Due to its corrosive properties, inhalation may cause symptoms such as burning, sore throat, cough, breathlessness and shortness of breath. Redness, pain, severe burns, blisters, etc. may appear when touching the skin or eyes. Symptoms of pulmonary edema often do not appear until 2 to 3 hours, and worsen if you are not rested.

5. FIRE FIGHTING MEASURES

- EXTINGUISHING MEDIA** : Carbon dioxide, dry chemical powder, foam, water spray
- FIRE & EXPLOSION HAZARDS** : Toxic and irritating dust, fumes or smoke may be emitted.
- SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS** : Fireman should wear normal protective equipment (full bunker gear) and positive-pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

- PERSONAL PRECAUTIONS** : Avoid raising dust and avoid contact with skin and eyes. In case of insufficient ventilation, wear suitable respiratory equipment.
- ENVIRONMENTAL PRECAUTIONS** : Prevent spills from entering sewers, watercourses or low areas. Comply with local disposal regulations.
- METHODS FOR CLEANING UP** : Do not touch spilled material without suitable protection. After material is completely picked up, wash the spill site with soap and water and ventilate the area. Pull all wastes in a plastic bag for disposal and seal it tightly. Remove, clean, or dispose contaminated clothing.

7. HANDLING AND STORAGE

- HANDLING** : Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Handle this product with appropriate protective equipments.
- STORAGE** : Store away from sunlight in well-ventilated dry place at room temperature. Keep the product in an original box after use it.
- INCOMPATIBLE PRODUCTS** : Strong oxidizers and strong acids

8. EXPOSURE CONTROL/PERSONAL PROTECTION

- ENGINEERING MEASURES** : Use exhaust ventilation to keep airborne concentrations below exposure limits. Use adequate ventilation.
- VENTILATION** : Local Exhaust ; Recommended, Mechanical(General) ; Recommended
- CONTROL PARAMETERS**
- ACGIH : Ceiling 2 mg/m<sup>3</sup> (NaOH)
- OSHA PEL : TWA= 2 mg/m<sup>3</sup> (NaOH)
- NIOSH REL : C 2 mg/m<sup>3</sup> (NaOH)

**PERSONAL PROTECTION**

RESPIRATORY PROTECTION	: Safety mask
HAND PROTECTION	: Chemical resistant gloves
EYE PROTECTION	: Safety glasses(goggles)
SKIN PROTECTION	: Protective clothing

**9. PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE	: White shot
ODOR	: Odorless
pH	: Strongly basic
BOILING POINT	: 1390°C(NaOH)
MELTING POINT	: 318°C(NAOH)
FLASH POINT	: No data available
FLAMMABILITY	: No data available
AUTOIGNITION TEMPERATURE	: No data available
VAPOR PRESSURE	: No data available
SPECIFIC GRAVITY (DENSITY)	: No data available
RELATIVE DENSITY	: 2.1
SOLUBILITY IN	
WATER	: Soluble
Organic solvent	: Insoluble
PARTITION COEFFICIENT ; n-octanol/water	: No data available
DECOMPOSITION TEMPERATURE	: No data available

**10. STABILITY AND REACTIVITY**

REACTIVITY	: Stable under recommended storage conditions, deliquescence.
CHEMICAL STABILITY	: Stable under recommended storage conditions.
CONDITION TO AVOID	: Extremes of temperature and direct sunlight, Moisture
INCOMPATIBLE MATERIALS	: Strong oxidizer, strong bases,
HAZARDOUS DECOMPOSITION PRODUCTS	: No data available

**11. TOXICOLOGICAL INFORMATION**

ACUTE TOXICITY (Oral)	: As relevant information, a LD50 value is 325 mg/kg for rabbits (SIDS (2002)).
ACUTE TOXICITY (Dermal)	: No data available
ACUTE TOXICITY (Inhalation)	: No data available
SKIN CORROSION/IRRITATION	: In a pig test using application of 2N (8%), 4N (16%) and 6N (24%) solutions on the abdominal region, gross blisters developed within 15 minutes of application and the 8 and 16% solutions produced severe necrosis in all epidermal layers. The 24% concentration produced numerous and severe blisters with necrosis extending deeper into the subcutaneous tissue (SIDS (2009)). Additionally, there is a report that severe necrosis occurred after application of a 5% solution to the skin of rabbits for 4-hour (ACGIH (7th, 2001)). Based on these data, the substance was classified into Category 1. As relevant information, the pH is 12 (0.05% w/w) (Merck (14th, 2006)). For humans, 0.5 - 4% solutions were irritating to the skin, and in skin irritation tests with a 0.5% solution, 55% and 61% of the volunteers showed positive skin irritation reactions (SIDS (2009)). In EU classification, the substance is classified into C; R35.
EYE DAMAGE/EYE IRRITATION	: Based on a report that the corrosive concentration for rabbit eyes was 1.2% or higher than 2% (SIDS (2009)) and a pH of 12 (0.05% w/w) (Merck (14th, 2006)), the substance was classified into Category 1. For humans, there are numerous case reports that the accidental exposure to high concentrations of dusts and solutions caused severe eye damage (ACGIH (7th, 2001)) and that accidental contact with the eye leads to blindness (DFGOT vol. 12 (1999)). As relevant information, the substance is corrosive to skin and classified into C; R35 in EU classification.
RESPIRATORY SENSITIZATION	: No data available

**SKIN SENSITIZATION** : Male volunteers were exposed on their backs to concentrations of 0.063 - 1.0% of the substance. After 7 days the volunteers were challenged to a concentration of 0.125%. The irritant response correlated well with the concentration, but an increased response was not observed when the previously patch tested sites were rechallenged. Based on these results, sodium hydroxide has no skin sensitization potential. Furthermore sodium hydroxide has been used widely and for a long time, and no human cases of skin sensitization were reported, therefore, sodium hydroxide is not considered to be a skin sensitizer (SIDS (2009)). Based on this conclusion, the substance was classified as "Not classified".

**GERM CELL MUTAGENICITY** : In bone marrow micronucleus tests by intraperitoneal administration to mice (in vivo somatic cell mutagenicity test), a significant increase of micronuclei was not observed. In addition, in an oocyte aneuploidy induction test by intraperitoneal administration to mice (in vivo germ cell mutagenicity test), any evidence that suggested a chromosome non-disjunction was not observed. Since these findings indicate negative results for in vivo somatic cell and germ cell mutagenicity tests, the substance was classified as "Not classified". As relevant information, from in vitro mutagenicity tests, there are reports of a negative Ames test and a false-positive CHO K1 cell chromosomal aberration test (SIDS (2009)).

**CARCINOGENICITY** : Although there is a report of a negative result in a rat carcinogenicity test by oral administration for 12 weeks (DFGOT vol. 12 (1999)), classification was not possible due to lack of sufficient data.

**REPRODUCTIVE TOXICITY** : No data available

**SPECIFIC TARGET ORGAN TOXICITY -Single exposure-**

: Based on a report that acute exposures involving inhalation of dusts or mists may cause mucous membrane irritation with subsequent cough and dyspnea; and that intense exposure may result in pulmonary edema and shock (PATTY (5th, 2001)), the substance was classified into Category 1 (respiratory system). As relevant information, there is a report that dust formation is unlikely because of the substance's hygroscopic properties and negligible vapour pressure (SIDS (2009)). There is a report of 28 accidental ingestion cases in which approximately 50 - 200 mL of a 25 - 37% solution of the substance was ingested and injury to the upper gastrointestinal tract and esophagus was observed (SIDS (2009)). Additionally, there are numerous case report of serious accidental or suicidal poisoning in which the substances caused severe corrosion of mouth, throat, tongue and oesophagus (DFGOT vol. 12 (1999)).

**SPECIFIC TARGET ORGAN TOXICITY -Repeated exposure-**

: There is a report that no animal data are available for repeated dose toxicity tests by oral, dermal, inhalation and other routes of exposure for the substance (SIDS (2009)). There is very little human data available. Classification was not possible due to lack of data. There is a report that following repeated inhalation exposure to aerosols of the substance, rats suffered pulmonary damage (ACGIH (7th, 2001)). This data was not used as the basis of classification since the exposure concentrations are unknown. As relevant information, there is a report that dust formation is unlikely because of the hygroscopic properties and negligible vapour pressure of the substance (SIDS (2009)).

**ASPIRATION TOXICITY** : No data available

## 12. ECOLOGICAL INFORMATION

**Hazardous to the aquatic environment -Acute hazard-**

: Classified into Category 3 from its 48h-LC50 = 40 mg/L for Crustacea (Cenodaphnia quadrangular) (SIDS, 2004, etc).

**Hazardous to the aquatic environment -Chronic hazard-**

: Classified into Not classified since the toxicity is mitigated in environmental water by buffer action though it is considered to be a factor of toxicity that water solution becomes a strong base.

**BIODEGRADABILITY** : No data available.

**BIOACCUMULATIVE POTENTIAL** : No data available

**MOBILITY IN SOIL** : No data available

**Hazardous to the ozone layer** : This substance is not listed in Annexes to the Montreal Protocol.

**13. DISPOSAL INFORMATION**

Dispose in a hazardous-waste site in accordance with all applicable regulations. Any disposal practice must be in compliance with country, local, state, and federal laws and regulations (contact country, local or state environment agency for specific rules).

---

**14. TRANSPORT INFORMATION**

## IATA

UN NUMBER : 3262  
UN PROPER SHIPPING NAME : Corrosive solid, basic, inorganic, n.o.s.(Mixture Sodium Hydroxide)  
CLASS : 8  
PACKING GROUP : II  
ADR/RID : UN3262, Class 8, II  
DOT(Department of Transportation) : UN3262, Class 8, II  
MARINE POLLUTANT : Not classified

---

**15. REGULATORY INFORMATION**

For classification and labeling of chemicals in accordance with the applicable rules and regulations in the EU or each country, refer to GHS classification of this product (See Section 2).

US REGULATION : OSHA HCS 2012/29 CFR 1910.1200  
EU REGULATION : CLP Regulation ((EC) No. 1272/2008)

---

**16. OTHER INFORMATION**

## NOTICE:

The information contained in the SDS description is applicable exclusively to the chemical substance identified herein and for its intended use as an analytical reference standard or reagent and to the unit quantity intended for that purpose. The information does not relate to, and may not be appropriate for, any application or larger quantity of the substance described. Our products are intended for the use by individuals possessing sufficient technical skill and qualification on use the material potential hazardous chemical. Accordingly, no representation or warranty, express or implied, with respect to merchantability and fitness for a particular purpose is made with respect to the information contained herein.

## Attention:

This product in terms of chemical identity and the unit amount provide is intended for use in chemical analysis and not for human consumption, nor any other purpose.