SECTION 1: Identification of the substance/mixture and of the company

Product Identifier

Product Name: ADDSiL™ 0778

Relevant identified uses of the substance or mixture and uses advised against

Use of substance / preparation: Industrial use

Details of the supplier of the safety data sheet

Company Nanjing SiSiB Silicones Co., Ltd.
Guanghua Sci & Tech Industrial Zone,
No. 104, Guanghua Road, Nanjing 210007, P.R.China
Email: SDS@SiSiB.com

Emergency Telephone Number: +86-25-8468-0091

SECTION 2: Hazardous identification

Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008:

Serious eye damage/eye irritation	Category 1	H318
Skin corrosion/irritation	Category 1A	H314

Label elements

Labelling according to Regulation (EC) No. 1272/2008:

Pictogram(s):

Signal word Danger

Hazard statement

H314 Causes severe skin burns and eye damage.

Precautionary statement Prevention:

P280 Wear protective gloves/protective clothing/eye protection.

P271 Use only outdoors or in a well-ventilated area.

P260 Do not breathe spray.

Precautionary statement Reaction:

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/shower.

P304+P340 IF INHALTED: 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.
P310	Immediately call a POISON CENTER/doctor.

Precautionary statement:

P501 Dispose of contents/container to waste disposal.

Other hazards

No data available.

SECTION 3: Composition/information on ingredients

Substances

not applicable

Chemical characteristics

Potassium siliconate + water

Hazardous ingredients

Type	CAS No.	EC-No.	Material	Content %	Classification according to Regulation (EC) No. 1272/2008*	Comment
INHA	31795-24-1	250-807-9	Potassium methylsiliconate	>50	Skin Corr. 1A; H314 Eye Dam. 1; H318	[1]

Type: INHA: ingredient, VERU: impurity

[1] = Hazardous or environmentally harmful substance; [2] = substance with a Community workplace exposure limit; [3] = PBT substance; [4] = vPvB substance

SECTION 4: First aid measures

Description of first aid measures

General information:

Take persons to a safe place. Observe self-protection for first aid. Always seek medical advice in the event of contact with this substance.

After contact with the eyes:

Rinse immediately with plenty of water for 10-15 minutes. Keep eyelids well open to rinse the whole eye surface and eyelids with water. Seek medical advice immediately and clearly identify substance. Continue to bathe eyes during transport to medical practitioner.

After contact with the skin:

Remove contaminated clothes at once. Wash off with plenty of water or water and soap immediately for 10-15 minutes. In serious cases, use emergency shower immediately. Seek medical advice immediately

and clearly identify substance.

After inhalation:

Keep the patient calm. If unconscious place in stable sideways position. Protect against loss of body heat. If breathing stops, administer artificial respiration. Seek medical advice immediately and clearly identify substance.

After swallowing:

If conscious, give several small portions of water to drink. Do not induce vomiting. Seek medical advice immediately and clearly identify substance.

Most important symptoms and effects, both acute and delayed

Any relevant information can be found in other parts of this section.

Indication of any immediate medical attention and special treatment needed

After inhalation: treat as early as possible using cortisone spray. Medical checks necessary up to a latency period of at least 24 hours. In the event of 1st degree burns use corticoid-externa. In the case of 2nd degree burns, use symptomatic treatment. Further toxicology information in section 11 must be observed.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

not applicable

Extinguishing media which must not be used for safety reasons:

not applicable

Special hazards arising from the substance or mixture

not applicable

Advice for firefighters

Special protective equipment for firefighters:

Use respiratory protection independent of recirculated air.

General information:

Product does not burn. Use extinguishing measures appropriate to the source of the fire.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment (see section 8). Avoid contact with eyes and skin. Avoid inhaling mists and vapors. Keep unprotected persons away.

Environmental precautions

Prevent material from entering surface waters, drains or sewers and soil. Contain any fluid that runs out using suitable material (e.g. earth).

Methods and material for containment and cleaning up

Take up mechanically and dispose of according to local/state/federal regulations. For small amounts: Absorb with a liquid binding material such as diatomaceous earth and dispose of according to local/state/federal regulations. Dilute with plenty of water and dispose of according to local/state/federal regulations. Contain larger amounts and pump up into suitable containers.

Reference to other sections

Relevant information in other sections has to be considered. This applies in particular for information given on personal protective equipment (section 8) and on disposal (section 13).

SECTION 7: Handling and storage

Precautions for safe handling

Avoid contact with acids. Avoid formation of aerosols. In case of aerosol formation special protective measures are required (exhausting by suction, respiratory protection).

Conditions for safe storage, including any incompatibilities

Do not store in containers made of aluminum or other light metals.

Advice on protection against fire and explosion

Avoid contact with acids.

Storage:

Keep containers tightly closed.

Minimum temperature allowed during storage and transportation: -30 °C

Specific end use(s)

No further information available

If the annex to this safety data sheet contains exposure scenarios for end uses, the information provided therein has to be observed.

SECTION 8: Exposure controls/personal protection

Control parameters

Derived No-Effect Level (DNEL):

Potassium methylsiliconate

Area of use:	Value:
Worker; dermal; systemic (acute)	6,6 mg/kg/day
Worker; dermal; systemic (long term)	6,6 mg/kg/day
Worker; by inhalation; systemic (acute)	47 mg/m^3
Worker; by inhalation; systemic (long term)	47 mg/m^3
Consumer; oral; systemic (long term)	0,42 mg/kg/day
Consumer; dermal; systemic (acute)	4,0 mg/kg/day
Consumer; dermal; systemic (long term)	4,0 mg/kg/day
Consumer; by inhalation; systemic (acute)	10 mg/m^3
Consumer; by inhalation; systemic (long term)	10 mg/m^3

Predicted No Effect Concentration (PNEC):

Potassium methylsiliconate

Area of use:	Value:
freshwater	4,2 mg/l The value was derived for the hydrolysis product methylsilanetriol.
marine water	0,42 mg/l The value was derived for the hydrolysis product methylsilanetriol.
Intermittent release	4,2 mg/l The value was derived for the hydrolysis product methylsilanetriol.
Sediment (freshwater)	3,3 mg/kg The value was derived for the hydrolysis product methylsilanetriol.
Sediment (marine water)	0,33 mg/kg The value was derived for the hydrolysis product methylsilanetriol.
Soil	0,54 mg/kg The value was derived for the hydrolysis product methylsilanetriol.
sewage treatment plant	10 mg/l The value was derived for the hydrolysis product methylsilanetriol.
Secondary poisoning	3,3 mg/kg The value was derived for the hydrolysis product methylsilanetriol.

Exposure controls

Exposure in the work place limited and controlled

General protection and hygiene measures:

Avoid contact with eyes and skin. Do not inhale gases/vapors/aerosols. Do not eat or drink when handling. Remove contaminated, soaked clothing immediately.

Personal protection equipment:

Respiratory protection

In case of long or strong exposure: gas mask filter ABEK.

Eye protection

Tight fitting protective goggles required. Provide work station with eye bathing equipment.

Hand protection

Gloves are required at all times when handling the material. The selection of appropriate gloves not only depends on the material, but also on other quality characteristics, and may vary depending on the manufacturer. Please observe information from your glove supplier in terms of permeability and breakthrough time. Recommendation: Protective gloves made of 5-layer laminate of PE and EVOH (4H), Protective gloves coated with neoprene, Protective gloves made of nitrile rubber or Protective gloves made of fluorinated rubber. Gloves suitable for up to 480 minutes' use.

Skin protection

Protective clothing, protective goggles/face protection. Where there is risk of splashing: complete head, face and neck protection.

Exposure to the environment limited and controlled

Prevent material from entering surface waters and soil. Do not introduce large amounts into purification plants. Normally neutralization is required before waste water is introduced into purification plants.

Further information for system design and engineering measures

Observe information in section 7.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Property:	**Value:**
Appearance	
Physical state/Form	liquid
Color	colorless to straw
Odor	
Odor	faint
Odor limit	
Odor limit	no data available
pH-Value	
pH-Value	13 - 14 at 25 °C
Melting point/freezing point	
Melting point/melting range	approx. -85 °C
Crystal formation	-84.8 °C at 1013 hPa
Setting point/range	< -80 °C at 1013 hPa
Initial boiling point and boiling range	
Initial boiling point and boiling range	100 °C at 1013 hPa
Flash point	
Flash point	not determinable (Substance exhibits no flashpoint until boiling commences.)
Evaporation rate	
Evaporation rate:	no data available
Upper/lower flammability or explosive limits	
Lower explosion limit (LEL):	not applicable
Upper explosion limit (UEL):	not applicable
Vapor pressure	
Vapor pressure:	not determined
Solubility(ies)	
Water solubility / miscibility:	completely miscible at 20 °C
Vapor density	
Relative gas/vapor density:	No data known.
Relative Density	
Relative Density:	1.4 (25 °C; 1013 hPa)
(Water / 4 °C = 1,00)	
Density:	1.4 g/cm^3 (25 °C; 1013 hPa)
Partition coefficient: n-octanol/water	
Partition coefficient: n-octanol/water :	No data known.
Auto-ignition temperature	

Ignition temperature: > 600 °C (DIN 51794)

Viscosity

Viscosity (dynamic): 10 - 25 mPa.s at 25 °C

Molecular mass

Molecular mass: not applicable

Other information

no data available

SECTION 10: Stability and reactivity

Reactivity; Chemical stability; Possibility of hazardous reactions

If stored and handled in accordance with standard industrial practices no hazardous reactions are known.

Relevant information can possibly be found in other parts of this section.

Conditions to avoid

none known

Incompatible materials

Reacts with: acids. Reaction causes the formation of: heat.

Hazardous decomposition products

If stored and handled properly: none known

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Assessment:

Based on the available data acute toxic effects are not expected after single oral exposure.

Product details:

Route of exposure	Result/Effect	Species/Test system	Source
oral	LD50: > 2000 mg/kg	rat	test report

Skin corrosion/irritation

Assessment:

After contact to the skin strong corrosion of the skin are to be expected.

Product details:

Result/Effect	Species/Test system	Source
severe burns	rabbit	Conclusion by analogy

Serious eye damage/eye irritation

After contact to the eyes irreversible effects must be expected.

Product details:

Result/Effect	Species/Test system	Source
severe burns	rabbit	Conclusion by analogy

Respiratory or skin sensitization

Based on the corrosive properties an examination of this toxicological endpoint is not necessary.

Germ cell mutagenicity

According to our present state of knowledge not mutagenic. The evaluation is based of the whole data, including results of similar substances.

Product details:

Result/Effect	Species/Test system	Source
negative	mutation assay (in vitro) bacterial cells	test report OECD 471
positive	chromosome aberration assay (in vitro) mammalian cells	test report (Alkoxy silanes) OECD 473
negative	micro nucleus assay (in vivo)	test report (Alkoxy silanes) OECD 474

Carcinogenicity

Assessment:

Based on the available toxicological data no specific evaluation of the carcinogenic potential is scientifically implicated.

Reproductive toxicity

Assessment:

Based on hydrolysis characteristics of the substance the assessment is based on the hydrolysis products. For the silanols/siloxanols a conclusion was made by analogy (read-across) to structurally similar alkoxy silanes. On the basis of the available data no reproductive hazards are expected.

Product details:

Result/Effect(Examinations of fertility disruption)	Species/Test system	Source
NOAEL: >= 1000 mg/kg	rat	test report (Alkoxy silanes) OECD 422

Result/Effect(Examinations of developmental toxicity and teratogenicity)	Species/Test system	Source
NOAEL (developmental): >= 1000 mg/kg	rat	test report (Alkoxy silanes) OECD 422

Specific target organ toxicity - single exposure

For this endpoint no toxicological test data is available for the whole product.

Specific target organ toxicity - repeated exposure

Based on hydrolysis characteristics of the substance the assessment is based on the hydrolysis products. For the silanols/siloxanols a conclusion was made by analogy (read-across) to structurally similar alkoxy silanes.

Product details:

Result/Effect	Species/Test system	Source
NOAEC: 0,56 mg/l LOAEC: 2,2 mg/l NOAEC = NOAEC (systemic effects)	Subchronic study rat (both sexes) by inhalation (gas / vapour) 90 d; 5 d/w; 6 hours/day	test report (read-across substance) OECD 413
NOAEL: 50 mg/kg	Subacute study	test report (read-across substance)

LOAEL: 250 mg/kg NOAEL = NOAEL (systemic effects)	rat (both sexes) oral (gavage) 28 d; 7 d/w	OECD 422

Aspiration hazard

In case an aspiration hazard is based on ingredients, this can be seen from the classification and labeling of the whole product.

Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

Toxicity

Assessment:

Based on hydrolysis characteristics of the substance the assessment is based on the hydrolysis products. For the silanols/siloxanols a conclusion was made by analogy (read-across) to structurally similar alkoxy silanes. On the basis of these data no harmful effects are expected for aquatic organisms after neutralization or if the buffer capacity of the sewage treatment plant or the water compartiment is not exeeded.

Product details:

Result/Effect	Species/Test system	Source
LC50: > 500 mg/l	semistatic zebra fish (Danio rerio) (96 h)	test report (Alkoxy silanes) OECD 203
EC50: > 100 mg/l (nominal)	static Daphnia magna (48 h)	test report OECD 202
EC50: > 120 mg/l (nominal)	static Pseudokirchneriella subcapitata (72 h)	test report (Alkoxy silanes) OECD 201
EC50: > 100 mg/l	no data available	test report OECD 209

Persistence and degradability

Product details:

Biodegradation:

Result	Test system/Method	Source
0 % / 28 d Not readily biodegradable.	CO_2 formation	test report (Alkoxy silanes) OECD 310

Bioaccumulative potential

No adverse effects expected.

Mobility in soil

No data known.

Results of PBT and vPvB assessment

This product contains no relevant substances considered to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

Other adverse effects

none known

SECTION 13: Disposal considerations

Waste treatment methods

Material

Recommendation:

Dispose of according to regulations by incineration in a special waste incinerator. Small quantities may be disposed of by incineration in an approved facility. Observe local/state/federal regulations.

Uncleaned packaging

Recommendation:

Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations.

Waste Key Number

No waste key number as per the European Waste Types List can be assigned to this product, since such classification is based on the (as yet undetermined) use to which the product is put by the consumer.
The waste key number must be determined as per the European Waste Types List (decision on EU Waste Types List 2000/532/EC) in cooperation with the disposal firm / producing firm / official authority.

SECTION 14: Transportation information

Road ADR:

Valuation:	Dangerous Goods
UN no.:	3267
Proper Shipping Name:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (contains potassium methylsiliconate)
Class:	8
Packaging Group:	II

Railway RID:

Valuation:	Dangerous Goods
UN no.:	3267
Proper Shipping Name:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (contains potassium methylsiliconate)
Class:	8
Packaging Group:	II

Transport by sea IMDG-Code:

Valuation:	Dangerous Goods
UN no.:	3267

Proper Shipping Name:	Corrosive liquid, basic, organic, n.o.s. (contains potassium methylsiliconate)
Class:	8
Packaging Group:	II

Air transport ICAO-TI/IATA-DGR:

Valuation:	Dangerous Goods
UN no.:	3267
Proper Shipping Name:	Corrosive liquid, basic, organic, n.o.s. (contains potassium methylsiliconate)
Class:	8
Packaging Group:	II

Environmental hazards

Hazardous to the environment: no

Marine Pollutant (IMDG): no

Special precautions for user

Relevant information in other sections has to be considered.

Transport in bulk according to Annex II of MARPOL and the IBC Code

Bulk transport in tankers is not intended.

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

National and local regulations must be observed.

For information on labelling please refer to section 2 of this document.

National legislation

SI 2002/1689: CHIP Regulations 2002

SI 2002/2677: COSHH Regulations 2002

SI 1999/3242: Management of Health & Safety at Work Regulations 1999

Health & Safety at Work Act 1974

SI 1993/1643: Environmental Protection Act 1993 & Subsidiary Regulations.

Other national and local measures relating to the workplace, pollution control, environmental protection and waste control.

Other specifications, restrictions and prohibitions:

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals: Not applicable

Regulation (EU) 2019/1148 on the marketing and use of explosives precursors - ANNEX I. RESTRICTED EXPLOSIVES PRECURSORS: Not applicable

Regulation (EU) 2019/1148 on the marketing and use of explosives precursors - ANNEX II. REPORTABLE EXPLOSIVES PRECURSORS: Not applicable

Details of international registration status

Relevant information about individual substance inventories, where available, is given below.

Japan: **ENCS** (Handbook of Existing and New Chemical Substances):

This product is listed in, or complies with, the substance inventory.
New Zealand: **NZIoC** (New Zealand Inventory of Chemicals):
This product is listed in, or complies with, the substance inventory. (For a correct interpretation of the New Zealand status, additional information like GHS classification or Group Standard is required.)
Australia: **AIIC** (Australian Inventory of Industrial Chemicals):
This product is listed in, or complies with, the substance inventory.
China: **IECSC** (Inventory of Existing Chemical Substances in China):
This product is listed in, or complies with, the substance inventory.
Canada: **DSL** (Domestic Substance List):
This product is listed in, or complies with, the substance inventory.
Philippines: **PICCS** (Philippine Inventory of Chemicals and Chemical Substances):
This product is listed in, or complies with, the substance inventory.
United States of America (USA): **TSCA** (Toxic Substance Control Act Chemical Substance Inventory):
All components of this product are listed as active or are in compliance with the substance inventory.
Taiwan: **TCSI** (Taiwan Chemical Substance Inventory):
This product is listed in, or complies with, the substance inventory. General note: The Taiwanese chemicals regulation requires a phase 1 registration for TCSI-listed or TCSI-compliant substances if imports to Taiwan or manufacturing in Taiwan exceed the trigger quantity of 100 kg/a (for mixtures to be calculated per each ingredient). It is the duty of the importing/manufacturing legal entity to take care of this obligation.
European Economic Area (EEA): **REACH** (Regulation (EC) No 1907/2006):
General note: the registration obligations for substances imported into the EEA or manufactured within the EEA by the supplier mentioned in section 1 are fulfilled by the said supplier. The registration obligations for substances imported into the EEA by customers or other downstream users must be fulfilled by the latter.
South Korea (Republic of Korea): **AREC** (Act on Registration and Evaluation of Chemicals; “K-REACH”):
Please approach your regular contact for more detailed information.

Chemical safety assessment

The generation and communication of exposure scenarios is in accordance with annex XI, article 3, of (EC) regulation 1907/2006 (REACH).

SECTION 16: Other information

Further information

It must be recognized that the physical and chemical properties of any product may not be fully understood and that new, possibly hazardous products may arise from reactions between chemicals. The information given in this data sheet is based on our present knowledge and shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.