

1. Product and company identification

1.1. Product Name

Product form	: Substance
Trade name	: Soda Ash (Solid)
Chemical name	: Sodium cyanide
CAS-No.	: 143-33-9
KECI-No.	: KE-31401
Serial number	: 97-1-90(3)
SRPA-No.	: 33
Product group	: Trade product
Formula	: CNNa

1.2. Recommended use of the chemical and restrictions on use

1.2.1. Recommended use

Use Categories : 13 - Metal surface treatment products. 37 - Solvent and extraction agents.

Recommended use : Metal surface treatment products. Solvent and extraction agents.

1.2.2. Restrictions on use

1.3. Supplier information

- Manufacturer	
Company	: Tongsuh Petrochemical Corp.,LTD.
Address	: 108-70 Sapyung-ro, Nam-gu, Ulsan
Tel.	: 052-259-7691, 052-260-0178
Emergency telephone number	: 052-259-7691

2. Hazards identification

2.1. Hazard Classification

Acute toxicity (oral), Category 2	H300
Acute toxicity (dermal), Category 1	H310
Acute toxicity (inhalation), Category 2	H330
Acute toxicity (inhalation:dust,mist), Category 1	H330
Specific target organ toxicity - Repeated exposure, Category 1	H372
Hazardous to the aquatic environment – Acute Hazard, Category 1	H400 (M=10)
Hazardous to the aquatic environment – Chronic Hazard, Category 1	H410 (M=10)

2.2. Label elements including precautionary statements

2.2.1. Hazard pictograms (GHS KR)



2.2.2. Signal word (GHS KR)

Danger.

2.2.3. Hazard statements (GHS KR)

H300+H310+H330 - Fatal if swallowed, in contact with skin or if inhaled

H372 - Causes damage to organs through prolonged or repeated exposure

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

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2.2.4. Precautionary statements (GHS KR)

Precaution:

- P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
- P262 - Do not get in eyes, on skin, or on clothing.
- P264 - Wash hands, forearms and face thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P271 - Use only outdoors or in a well-ventilated area.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
- P284 - Wear respiratory protection.

Treatment:

- P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor/....
- P302+P352 - IF ON SKIN: Wash with plenty of water/...
- P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P310 - Immediately call a POISON CENTER/doctor/...
- P314 - Get medical advice/attention if you feel unwell.
- P320 - Take urgent ... treatment.
- P321 - Take ... treatment.
- P330 - Rinse mouth.
- P361+P364 - Take off all contaminated clothing immediately and wash it before reuse.
- P391 - Collect spillage.

Storage:

- P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
- P405 - Store locked up.

Disposal:

- P501 - Dispose of contents/container according to waste related regulations.

2.3. Other Hazard which are not included in the classification criteria

Not applicable

3. Composition/information on ingredients

Product form : Substance

Substance name	Other Names	CAS-No. and Identifier number	Concentration (%)
Soda Ash (Solid)	No data available	CAS-No.: 143-33-9 KECI-No.: KE-31401	≥ 98

4. First-aid measures

4.1. Eye contact

Rinse eyes with water as a precaution.

4.2. Skin contact

Wash skin with plenty of water.
Take off immediately all contaminated clothing.
Call a physician immediately.

4.3. Inhalation

Remove person to fresh air and keep comfortable for breathing.
Call a physician immediately.
Call a doctor.

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4.4. Ingestion

Rinse mouth.
Call a physician immediately.

4.5. Indication of immediate medical attention and notes for physician

Self protection of the first-aider : First-aiders should pay attention to their own protection and use the recommended personal protective equipment (see section 8).
Other medical advice or treatment : Treat symptomatically.

5. Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray.
Dry powder.
Foam.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : No fire hazard.
Explosion hazard : No direct explosion hazard.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Fight fire from safe distance and protected location.
Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting : Do not attempt to take action without suitable protective equipment.
Self-contained breathing apparatus.
Complete protective clothing.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear recommended personal protective equipment.
Do not breathe dust/fume/gas/mist/vapours/spray.
Only qualified personnel equipped with suitable protective equipment may intervene.
Do not attempt to take action without suitable protective equipment.
For further information refer to section 8: "Exposure controls/personal protection".
Evacuate unnecessary personnel.

6.2. Environmental precautions and protective procedures

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Collect spillage.
Mechanically recover the product.
Dispose of materials or solid residues at an authorized site.

7. Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not breathe dust/fume/gas/mist/vapours/spray.
Do not get in eyes, on skin, or on clothing.
Wear personal protective equipment.
Use only outdoors or in a well-ventilated area.
Hygiene measures : Wash contaminated clothing before reuse.

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Do not eat, drink or smoke when using this product.

Always wash hands after handling the product.

Additional hazards when processed

: Not expected to present a significant hazard under anticipated conditions of normal use.

7.2. Conditions for safe storage

Technical measures

: Keep in a cool, well-ventilated place away from heat.

Storage conditions

: Store locked up.

Store in a well-ventilated place.

Keep container tightly closed.

Packaging materials

: Always store product in container of same material as original container.

8. Exposure controls & personal protection

8.1. Control parameters (e.g. occupational exposure limit values, biological limit values)

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Korea - Occupational Exposure Limits

Local name	시안화 나트륨 # Sodium cyanide
ISHA OEL TWA	3 mg/m ³
ISHA OEL STEL	5 mg/m ³
Remark (KR)	Skin
Regulatory reference	고용노동부고시 제2020-48호 # MOEL Public Notice. No. 2020-48

8.2. Appropriate engineering controls

Appropriate engineering controls

: Ensure good ventilation of the work station.

Environmental exposure controls

: Avoid release to the environment.

8.3. Personal protection equipment

Personal protective equipment

Wear recommended personal protective equipment.

Respiratory protection

[In case of inadequate ventilation] wear respiratory protection.

Eye protection

Safety glasses

Hand protection

Protective gloves

Skin and body protection

Wear suitable protective clothing

Personal protective equipment symbol(s):



9. Physical and chemical properties

a) Appearance

: Crystalline solid.

Physical state

: Solid

Colour

: white.

b) Odour

: Bitter almonds.

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c) Odour threshold	:	
d) pH	:	
e) Melting / freezing point	:	562 °C <번역 누락> / 562 <번역 누락>
f) Initial boiling point and boiling range	:	1500 °C
g) Flash point	:	
h) Evaporation rate	:	No data available
i) Flammability (solid, gas)	:	Non flammable.
j) Upper / lower flammability or explosive limits	:	Not applicable
k) Vapour pressure	:	100 Pa
l) Solubility	:	Solubility in water: 58.22 g/100ml
m) Vapour density	:	No data available
n) Relative density	:	No data available
o) Partition coefficient n-octanol/water (Log Kow)	:	0.66
p) Auto-ignition temperature	:	
q) Decomposition temperature	:	> 300 °C
r) Viscosity, kinematic	:	Not applicable
Viscosity, dynamic	:	4 cP
s) Molecular mass	:	49 g/mol

10. Stability and reactivity

10.1. Chemical stability and Possibility of hazardous reactions

The product is non-reactive under normal conditions of use, storage and transport.
Stable under normal conditions.
No dangerous reactions known under normal conditions of use.

10.2. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.3. Incompatible materials

No data available

10.4. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

11.1. Information on the likely routes of exposure

Oral	:	Fatal if swallowed.
Skin and eyes contact	:	Acute toxicity (dermal) - Fatal in contact with skin.
Inhalation	:	Acute toxicity (inhalation) - Fatal if inhaled. Acute toxicity (Inhalation:dust,mist) - Fatal if inhaled.

11.2. Health hazards information

Acute toxicity (oral):

Fatal if swallowed.

Acute toxicity (dermal):

Fatal in contact with skin.

Acute toxicity (inhalation):

Fatal if inhaled.

Inhalation:dust,mist - Fatal if inhaled.

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Soda Ash (Solid) (143-33-9)	
LD50 oral rat	5.09 mg/kg
LD50 oral	5.733 mg/kg
LD50 dermal	14.602 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	≤ 0.05 mg/l/4h
ATE KR (gases)	100 ppmv/4h
ATE KR (vapours)	0.5 mg/l/4h

Skin corrosion/irritation:

Not classified

Serious eye damage/irritation:

Not classified

Respiratory sensitization:

Not classified

Skin sensitization:

Not classified

Carcinogenicity:

Not classified

Mutagenicity:

Not classified

Reproductive toxicity:

Not classified

STOT-single exposure:

Not classified

STOT-repeated exposure:

Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard:

Not classified

Soda Ash (Solid) (143-33-9)	
Viscosity, kinematic	Not applicable

12. Ecological information

12.1. Aquatic and terrestrial ecotoxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-term (acute) : Very toxic to aquatic life.

Hazardous to the aquatic environment, long-term (chronic) : Very toxic to aquatic life with long lasting effects.

Soda Ash (Solid) (143-33-9)	
LC50 - Fish [1]	0.05 mg/l
Partition coefficient n-octanol/water (Log Kow)	0.66

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12.2. Persistence and degradability

Soda Ash (Solid) (143-33-9)

Persistence and degradability	Not rapidly degradable
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12.3. Bioaccumulative potential

Soda Ash (Solid) (143-33-9)

Partition coefficient n-octanol/water (Log Kow)	0.66
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12.4. Mobility in soil

Soda Ash (Solid) (143-33-9)

Partition coefficient n-octanol/water (Log Kow)	0.66
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12.5. Other adverse effects

Ozone	: Not classified
Other adverse effects	: No data available

13. Disposal considerations

13.1. Disposal method

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Ecological waste information	: The waste of the product should be considered as hazardous as the product itself, with the likelihood of impacting the environment in the same way. Consider the handling and disposal of the waste as defined by the product itself.

13.2. Disposal precaution

Product/Packaging disposal recommendations	: Comply with applicable regulations for solid waste disposal. Disposal must be done according to official regulations.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.

14. Transport information




In accordance with UN RTDG / IMDG / IATA

UN RTDG	IMDG	IATA
14.1. UN number		
1689	1689	1689
14.2. UN proper shipping name		
SODIUM CYANIDE, SOLID	SODIUM CYANIDE, SOLID	Sodium cyanide, solid
Transport document description		
UN 1689 SODIUM CYANIDE, SOLID, 6.1, I, ENVIRONMENTALLY HAZARDOUS	UN 1689 SODIUM CYANIDE, SOLID, 6.1, I, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 1689 Sodium cyanide, solid, 6.1, I, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)		
6.1	6.1	6.1

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UN RTDG	IMDG	IATA
		
14.4. Packing group		
I	I	I
14.5. Marine pollutant		
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes
No data available		

14.6. Special precaution which a user to be aware of or needs to comply with in connection with transport or conveyance either within or outside their premises

No data available

15. Regulatory information

15.1. Occupational Safety and Health Act

Hazardous Substances Prohibited for Manufacturing	Not applicable	
Hazardous Substances Requiring Permission	Not applicable	
Threshold Limit Values Chemicals	Applicable	143-33-9: Sodium cyanide
Hazardous Substances Below Permissible Level	Not applicable	
Hazardous Substances Subject to Working Environment Measurement	Applicable	143-33-9: Sodium cyanide (contains above 1%)
Hazardous Substances Subject to Workers Requiring Health Examination	Applicable	143-33-9: Sodium cyanide (Examination Cycle: 12 months) (contains above 1%)
Hazardous Substances Subject to Control Substance Subject to Submission of PSM	Applicable	143-33-9: Sodium cyanide (contains above 1%)
	Not applicable	

15.2. Chemical Substances Control Act

Substance acutely hazardous to human health	Not applicable	
Substance chronically hazardous to human health	Not applicable	
Substance hazardous to the environment	Not applicable	
Restricted Substances	Not applicable	
Prohibited Substances	Not applicable	
Substances Requiring Preparation for Accident	Applicable	143-33-9: Sodium cyanide (SRPA-No. : 33 (contains above 1%))

15.3. Act on Registration and Evaluation of Chemicals (K-REACH)

Korea Existing Chemicals Inventory (KECI)	Applicable	143-33-9: Sodium cyanide (KECI-No. : KE-31401)
Substances Subject to Intensive Control	Not applicable	
Priority Existing Chemicals (PEC)	Applicable	143-33-9: Sodium cyanide (PEC-No. : 183)
CMR Substances	Not applicable	

15.4. Safety Control of Dangerous Substances Act

Safety Control of Dangerous Substances Act	Not applicable
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15.5. Wastes Control Act

Hazardous Substances in Designated wastes	Applicable	143-33-9: Cyanide (Contained in an effluent; Threshold condition to verify (contains above 1mg/l))
Types of wastes	No data available	

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15.6. Other Domestic and International Regulatory Information

Other Domestic Regulations

Persistent Organic Pollutants(POPs) Control Act	Not applicable
Ozone Depleting Substances(ODS)	Not applicable
PRTR Substances	Not applicable

EU Regulatory Information

EU Candidate list (SVHC)	Not listed on the REACH Candidate List
EU authorization list (REACH Annex XIV)	Not listed on REACH Annex XIV (Authorisation List)
EU restriction list (REACH Annex XVII)	Not applicable

US Regulatory Information

CERCLA Section 103 (40CFR302.4)	Applicable
EPCRA Section 302 (40CFR355.30)	Applicable
EPCRA Section 304 (40CFR355.40)	Applicable
EPCRA Section 313 (40CFR372.65)	Not applicable

16. Other information

16.1. Information source and references

This MSDS is prepared based on KOSHA, NITE, ESIS, NLM, SIDS, IPCS, NCIS, etc.

16.2. Issue date

7/1/1996

16.3. Revision number and Revision date

Version	: 14.1
Revision date	: 4/26/2026

16.4. Others

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.