

Identification

SILVER FERN CHEMICAL, INC. SAFETY DATA SHEET

Calcium Chloride Mini-Pellets, 94-97%

Section 1. Identification

GHS Product Identifier Other Means of

: Calcium Chloride Mini-Pellets,

: 94-97% Not available.

Product Use : Concrete acceleration, Drilling fluid additive, Dust control

Supplier's details : Silver Fern Chemical, Inc.

121 W. De La Guerra Street, Suite B Santa Barbara, CA 93101 USA

Customer Service: Phone: 1-866-282-3384

Email Address - info@silverfernchemical.com Website - www.silverfernchemical.com

Emergency
Tolophone Number

Telephone Number : Infotrac: 1-800 535-5053 (USA & Canada); 1-352-323-3500 (Outside USA & Canada)

Section 2. Hazards identification

OSHA/HCS status

: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200.

Classification of the substance or mixture

: ACUTE TOXICITY (oral - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A

GHS label elements

Hazard pictograms



Signal word

: Warning

Hazard statements

: Harmful if swallowed.

Causes serious eye irritation.

Causes skin irritation.

Response

Precautionary statements

<u>Pre</u>vention

Wear protective gloves. Wear eye or face protection. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.: IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse

mouth. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN

EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage

: Not applicable.

Hazards not otherwise classified

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Disposal

: None known.

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Section 3. Composition/information on ingredients

Substance/mixture

Other means of identification

: Mixture

: Not available.

Product code : CC-01

Ingredient name	%	CAS number
calcium chloride	≥90	10043-52-4
Impurity and Stabilizers:		
potassium chloride	≤5	7447-40-7
sodium chloride	≤3	7647-14-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact

: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact

: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact

: Causes serious eye irritation. Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes.

Inhalation

: No known significant effects or critical hazards.

Skin contact

: Causes skin irritation. Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the skin.

Ingestion: Harmful if swallowed.

Over-exposure signs/symptoms

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Section 4. First aid measures

Eye contact: Adverse symptoms may include the following:

pain or irritation watering redness

Inhalation : Repeated inhalation of dust can produce varying degrees of respiratory irritation or lung

damage.

Skin contact: Adverse symptoms may include the following:

irritation redness

Ingestion : Repeated or prolonged exposure to the substance can produce mucous membranes

damage.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may

be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

Unsuitable extinguishing

media

: Use dry chemical, CO₂, water spray (fog) or foam. Use an extinguishing agent suitable

for the surrounding fire.

: Do not use water jet.

Specific hazards arising from the chemical

Hazardous thermal decomposition products

: No specific fire or explosion hazard. This material will not burn or burns with difficulty.

: Decomposition products may include the following materials: halogenated compounds

metal oxide/oxides

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders

: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.

See also the information in "For non-emergency personnel".

Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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Section 6. Accidental release measures

Methods and materials for containment and cleaning up

Small spill

: Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill

Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

including any incompatibilities

Conditions for safe storage, : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Handling and dilution of concentrates: water temperature <27°C/80°F

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
calcium chloride	None.
potassium chloride	None.
sodium chloride	None.

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

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Section 8. Exposure controls/personal protection

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Recommended: Ensure an MSHA/NIOSH-approved respirator or equivalent is used.

Section 9. Physical and chemical properties

Appearance

Physical state : Solid. [Pellets.]

Color White. Odor : Odorless. **Odor threshold** Not available. Hq : Not applicable. **Melting point** ~772°C (1421.6°F) : Not applicable. **Boiling point** Flash point : Not applicable. **Evaporation rate** : Not applicable.

Lower and upper explosive

Flammability (solid, gas)

(flammable) limits

Not available.Not available.

Vapor pressure : Not available.
Vapor density : Not applicable.
Relative density : Not available.
Density : 0.96 to 1.09 g/cm³
Solubility : Not available.
Solubility : Soluble.

Partition coefficient: n-

octanol/water

Not available.

Auto-ignition temperature : Not applicable.

Decomposition temperature : Not applicable.

Viscosity : Not applicable.

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Section 10. Stability and reactivity

Reactivity

: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability

: Stable under recommended storage and handling conditions (see Section 7).

Possibility of hazardous reactions

: Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to avoid

: Keep away from: moisture.

Incompatible materials

: May generate heat on contact with water. Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminum, tin, lead and zinc. Keep away from: sulfuric acid and bromide.

Hazardous decomposition products

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
calcium chloride	LD50 Dermal	Rabbit	5000 mg/kg	-
	LD50 Oral	Rat	1 g/kg	-
potassium chloride	LD50 Oral	Rat	2600 mg/kg	-
sodium chloride	LD50 Oral	Rat	3000 mg/kg	-

Conclusion/Summary

: Harmful if swallowed.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
calcium chloride	Eyes - Irritant	Rabbit	-	100 milligrams	21 days
potassium chloride	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Conclusion/Summary

Skin : Causes skin irritation.

Eyes: Causes serious eye irritation.

Sensitization

Conclusion/Summary: Not available.

Mutagenicity

Conclusion/Summary: Not available.

Carcinogenicity

Conclusion/Summary: Not available.

Reproductive toxicity

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Section 11. Toxicological information

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary: Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely

routes of exposure

: Routes of entry anticipated: Oral, Dermal, Inhalation, Ocular.

Potential acute health effects

Eye contact : Causes serious eye irritation. Handling and/or processing of this material may generate

a dust which can cause mechanical irritation of the eyes.

Inhalation : No known significant effects or critical hazards.

Skin contact: Causes skin irritation. Handling and/or processing of this material may generate a dust

which can cause mechanical irritation of the skin.

Ingestion : Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: Adverse symptoms may include the following:

pain or irritation watering redness

Inhalation : Repeated inhalation of dust can produce varying degrees of respiratory irritation or lung

damage.

Skin contact: Adverse symptoms may include the following:

irritation redness

Ingestion : Repeated or prolonged exposure to the substance can produce mucous membranes

damage.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Long term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary: Not available.

General : No known significant effects or critical hazards.
 Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Teratogenicity : No known significant effects or critical hazards.
 Developmental effects : No known significant effects or critical hazards.

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Section 11. Toxicological information

Fertility effects

: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)		Inhalation (dusts and mists) (mg/ I)
94-97% Calcium Chloride Mini-Pellets	1032.2	5257.7	N/A	N/A	N/A
calcium chloride	1000	5000	N/A	N/A	N/A
potassium chloride	2600	N/A	N/A	N/A	N/A
sodium chloride	3000	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
calcium chloride	LC50 8350 to 10650 mg/l Fresh water	Fish - Lepomis macrochirus	48 hours
	Acute EC50 3130000 μg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 52000 μg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 270 mg/l Marine water	Crustaceans - Americamysis bahia	48 hours
	Acute LC50 759000 μg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 2110 mg/l Fresh water	Fish - Pimephales promelas	96 hours
potassium chloride	Acute EC50 1337000 μg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 9.24 g/L Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 590 mg/l Fresh water	Daphnia - Daphnia magna	24 hours
	Acute EC50 83000 μg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 3470 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia	96 hours
	Acute LC50 9.68 mg/l Fresh water	Crustaceans - Pseudosida ramosa - Neonate	48 hours
	Acute LC50 4236 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 880 mg/l Fresh water	Fish - Pimephales promelas	96 hours
sodium chloride	Acute EC50 4.74 g/L Fresh water	Algae - Chlamydomonas reinhardtii	96 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute EC50 402600 μg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 1.7 g/L Fresh water	Fish - Cynopoecilus melanotaenia - Fry	96 hours
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Section 12. Ecological information

Acute IC50 6.87 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
Chronic LC10 781 mg/l Fresh water	Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	3 weeks
Chronic NOEC 6 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
Chronic NOEC 0.314 g/L Fresh water	Daphnia - Daphnia pulex	21 days
Chronic NOEC 100 mg/l Fresh water	Fish - Gambusia holbrooki - Adult	8 weeks

Conclusion/Summary

: Acute toxicity: Practically non-toxic to aquatic organisms.

Persistence and degradability

Conclusion/Summary: Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (Koc)

: 0 to 50

Mobility : High mobility in soil, based on experimental data.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-	-	-
Transport hazard class(es)	-	-	-	-	-	-
Label						
Packing group	-	-	-	-	-	-

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94-97% Calcium Chloride Mini-Pellets **Section 14. Transport information**

Environmental No. Marine No. hazards Pollutant: No

Special precautions for user : Transport within user's premises: always transport in closed containers that are

upright and secure. Ensure that persons transporting the product know what to do in the

event of an accident or spillage.

Transport in bulk according

: Not available.

to Annex II of MARPOL and the IBC Code

Section 15. Regulatory information

U.S. Federal regulations

Clean Air Act Section 112

: Not listed

(b) Hazardous Air **Pollutants (HAPs)**

Clean Air Act Section 602

Class I Substances

: Not listed

Clean Air Act Section 602

: Not listed

Class II Substances DEA List I Chemicals

: Not listed

(Precursor Chemicals)

DEA List II Chemicals

: Not listed

(Essential Chemicals)

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : ACUTE TOXICITY (oral) - Category 4

> SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A

Composition/information on ingredients

Name	%	Classification
calcium chloride	≥90	ACUTE TOXICITY (oral) - Category 4
		EYE IRRITATION - Category 2A
potassium chloride	≤5	EYE IRRITATION - Category 2B
sodium chloride	≤3	EYE IRRITATION - Category 2A

State regulations

Massachusetts : None of the components are listed. **New York** : None of the components are listed. **New Jersey** : None of the components are listed. **Pennsylvania** : None of the components are listed.

California Prop. 65

⚠ WARNING: This product can expose you to chemicals including calcium bromate, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

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Section 15. Regulatory information

		Maximum acceptable dosage level
Calcium bromate	-	-

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list Australia

United States

Canada All components are listed or exempted. China : All components are listed or exempted. **Europe** : All components are listed or exempted. **Japan** : Japan inventory (ENCS): All components are listed or exempted. **New Zealand** : All components are listed or exempted. **Philippines** : All components are listed or exempted. Republic of Korea : All components are listed or exempted. **Taiwan** : All components are listed or exempted. **Turkey** : All components are listed or exempted.

: All components are listed or exempted.

: All components are listed or exempted.

Section 16. Other information

National Fire Protection Association (U.S.A.)



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Procedure used to derive the classification

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94-97% Calcium Chloride Mini-Pellets

Section 16. Other information

Classification	Justification
\ , , \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Calculation method
SKIN IRRITATION - Category 2	Expert judgment
EYE IRRITATION - Category 2A	Calculation method

History

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Key to abbreviations : ADR = The European Agreement concerning the International Carriage of Dangerous

Goods by Road

ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
DOT = Department of Transportation

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973

as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available

RID = The Regulations concerning the International Carriage of Dangerous Goods by

Rail

SGG = Segregation Group

TDG = Transportation of Dangerous Goods

UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

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Approved - TL 6-02-21

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