

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 03/15/2024 Version: 1.1

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : Apex 21-7-6 Cool Weather with GAL-Xe ONE

Product code : M75208

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Fertiliser

1.3. Supplier

JR Simplot Company P.O. Box 70013 Boise, ID 83707 T 1-208-336-2110

1.4. Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (oral) Category 4 H302 Harmful if swallowed Serious eye damage/eye irritation Category 2B H320 Causes eye irritation Carcinogenicity Category 1A H350 May cause cancer

Specific target organ toxicity (single exposure) Category 3 H335 May cause respiratory irritation

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)





Signal word (GHS US) : Danger

Hazard statements (GHS US) : H302 - Harmful if swallowed

H320 - Causes eye irritation

H335 - May cause respiratory irritation

H350 - May cause cancer

Precautionary statements (GHS US) : P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.

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.

P280 - Wear protective gloves/protective clothing/eye protection/face protection. P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell

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+P313 - If exposed or concerned: Get medical advice/attention.

P312 - Call a poison center or doctor if you feel unwell

P330 - Rinse mouth.

P337+P313 - If eye irritation persists: Get medical advice/attention.

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

P405 - Store locked up.

P501 - Dispose of contents/container to ...in accordance with local/regional/national regulations

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2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Iron Sucrate	(CAS-No.) 8047-67-4	1.25 – 8.125	Acute Tox. 3 (Oral), H301 Carc. 2, H351
Proprietary*	(CAS-No.) Not Applicable		Not classified
copper(II)sulfate	(CAS-No.) 7758-98-7		Acute Tox. 3 (Oral), H301 Skin Irrit. 2, H315
quartz	(CAS-No.) 14808-60-7		Eye Irrit. 2B, H320 Carc. 1A, H350 STOT SE 3, H335 STOT RE 2, H373
iron(II)sulfate	(CAS-No.) 7720-78-7		Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315
manganese(II)sulfate	(CAS-No.) 7785-87-7		Acute Tox. 4 (Oral), H302 STOT RE 2, H373
zinc sulfate	(CAS-No.) 7733-02-0		Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318

^{*}Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general

: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation

: Remove person to fresh air and keep comfortable for breathing. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. Call a poison center/doctor/physician if you feel unwell.

First-aid measures after skin contact

: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash skin with plenty of water.

First-aid measures after eye contact

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

First-aid measures after ingestion

Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms

: Based on available data, the classification criteria are not met.

Symptoms/effects after inhalation

: May cause cancer by inhalation. May cause respiratory irritation.

Symptoms/effects after eye contact : Causes eye irritation. Mild eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of :

: Toxic fumes may be released.

fire

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5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions

: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting

: Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures

: Evacuate unnecessary personnel. Only qualified personnel equipped with suitable protective equipment may intervene. Avoid breathing dust/fume/gas/mist/vapors/spray.

6.1.2. For emergency responders

Protective equipment

: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures

: Ventilate area

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

: Mechanically recover the product. On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials. Notify authorities if product enters sewers or public waters.

Other information

: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Avoid contact with skin and eyes.

Hygiene measures

: Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

: Keep only in the original container in a cool, well ventilated place away from : Keep container tightly closed. Store locked up. Store in a well-ventilated place. Keep cool.

Incompatible products

: Strong bases. Strong acids.

Incompatible materials

: Sources of ignition. Direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Apex 21-7-6 Cool Weather with GAL-Xe ONE

No additional information available

Proprietary* (Not Applicable)

No additional information available

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quartz (14808-60-7)		
USA - ACGIH - Occupational Exposure Limits		
Local name	Silica crystaline - quartz	
ACGIH TWA (mg/m³)	0.025 R	
Remark (ACGIH)	TLV® Basis: Pulm fibrosis; lung cancer. Notations: A2 (Suspected Human Carcinogen)	
Regulatory reference	ACGIH 2019	
USA - OSHA - Occupational Exposure Limits		
Local name	Quartz (Respirable) (Silica: Crystalline)	
Remark (OSHA)	Table Z-3. For OSHA PEL (TWA): Use formulas: (250 / (%SiO2+5)) for mppcf and (10 mg/m3 / (%SiO2+2)) for mg/m3. CAS No. source: eCFR Table Z-1.	
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-3 Mineral Dusts	
copper(II)sulfate (7758-98-7)		
No additional information available		
iron(II)sulfate (7720-78-7)		
USA - ACGIH - Occupational Exposure Limits		
ACGIH TWA (mg/m³)	1 mg/m³	
manganese(II)sulfate (7785-87-7)		
USA - ACGIH - Occupational Exposure Limits		
ACGIH TWA (mg/m³)	0.1 mg/m³	
zinc sulfate (7733-02-0)		
No additional information available		
Iron Sucrate (8047-67-4)		
No additional information available		

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. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses. Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear appropriate mask. Wear respiratory protection.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Appearance : Granules.
Color : Multi-colored

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Odor : There may be no odour warning properties, odour is subjective and inadequate to warn of

overexposure.

Mixture contains one or more component(s) which have the following odour:

Odourless In moist air: Ammonia odour

Odor threshold No data available рΗ No data available Melting point No data available Freezing point Not applicable Boiling point : No data available Flash point Not applicable Relative evaporation rate (butyl acetate=1) : No data available Flammability (solid, gas) : Non flammable. Vapor pressure No data available Relative vapor density at 20 °C : No data available

Solubility : Soluble and slowly soluble. Polymer coating insoluble.

: No data available

: 59-63lbs/ft3

Partition coefficient n-octanol/water (Log Pow) : No data available : Not applicable Auto-ignition temperature : No data available Decomposition temperature Viscosity, kinematic No data available Viscosity, dynamic : No data available : Not applicable **Explosion limits** Explosive properties : No data available Oxidizing properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Relative density

Specific gravity / density

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Extremely high temperatures. Direct sunlight.

10.5. Incompatible materials

Oxidizing agent. Prolonged contact may cause oxidation of unprotected metals. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Extremely high temperatures. The product may reach melting point and decompose to release NH3, SOx, POx, or CN. fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

ATE US (oral) 1171.781 mg/kg body weight

copper(II)sulfate (7758-98-7)	
LD50 oral rat	300 mg/kg (Rat)

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LD50 dermal rabbit > 1000 mg/kg (Rabbit) iron(Il)sulfate (7720-78-7) LD50 oral rat 319 mg/kg (Rat; Literature) manganese(Il)sulfate (7785-87-7) LD50 oral rat 2150 mg/kg (Rat; Experimental value) zinc sulfate (7733-02-0) LD50 oral rat 1000 – 2000 mg/kg (Rat) Skin corrosion/irritation : Not classified Serious eye damage/irritation : Not classified Germ cell mutagenicity : Not classified Germ cell mutagenicity : Not classified Carcinogenicity : May cause cancer. quartz (14808-60-7) IARC group 1 - Carcinogenic to humans Iron Sucrate (8047-67-4) IARC group 3 - Not classified Reproductive toxicity : Not classified Specific target organ toxicity – single exposure : May cause respiratory irritation. quartz (14808-60-7) Specific target organ toxicity – single exposure May cause respiratory irritation. Specific target organ toxicity – single exposure May cause respiratory irritation. Specific target organ toxicity – single exposure May cause respiratory irritation.	(II) II (I =		
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symptoms Symptoms/effects after inhalation : May cause cancer by inhalation. May cause respiratory irritation.	·	: No data available	
		: Based on available data, the classification criteria are not met.	
Symptoms/effects after eye contact : Causes eye irritation. Mild eye irritation.	Symptoms/effects after inhalation	: May cause cancer by inhalation. May cause respiratory irritation.	
	Symptoms/effects after eye contact	: Causes eye irritation. Mild eye irritation.	
	ECTION 12: Ecological information		

12.1	OXIC	ty

: The product is not considered harmful to aquatic organisms or to cause long-term adverse Ecology - general effects in the environment.

copper(II)sulfate (7758-98-7)	
LC50 fish 1 0.0199 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Soft water)	
EC50 Daphnia 1	0.01 mg/l (48 h; Daphnia magna; Soft water)
LC50 fish 2	0.298 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Hard water)
EC50 Daphnia 20.2 mg/l (48 h; Daphnia magna; Hard water)TLM fish 13.8 ppm 24 h; Salmo gairdneri (Oncorhynchus mykiss)	

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copper(II)sulfate (7758-98-7)		
Threshold limit algae 2	1.1 mg/l (Scenedesmus quadricauda)	
iron(II)sulfate (7720-78-7)		
LC50 fish 1	925 mg/l (96 h; Poecilia reticulata; Heptahydrate)	
EC50 Daphnia 1	7.2 mg/l (48 h; Daphnia magna; Metal ion)	
LC50 fish 2	100 mg/l (96 h; Oryzias latipes; GLP)	
EC50 Daphnia 2	152 mg/l (48 h; Daphnia magna; Heptahydrate)	
Threshold limit algae 1	130 mg/l (72 h; Pseudokirchneriella subcapitata; Heptahydrate)	
Threshold limit algae 2	3.2 mg/l (72 h; Pseudokirchneriella subcapitata; Heptahydrate)	
manganese(II)sulfate (7785-87-7)		
LC50 fish 1	2850 mg/l (96 h; Colisa fasciatus; Manganese ion)	
EC50 Daphnia 1	8.28 mg/l (48 h; Daphnia magna)	
LC50 fish 2	33.8 mg/l (96 h; Pimephales promelas)	
EC50 Daphnia 2	10 mg/l (24 h; Daphnia magna)	
Threshold limit algae 1	25.7 mg/l (Phaeodactylum; Growth)	
Threshold limit algae 2	61 mg/l (72 h; Desmodesmus subspicatus; GLP)	
zinc sulfate (7733-02-0)		
LC50 fish 1	1.7 mg/l (96 h; Poecilia reticulata)	
EC50 Daphnia 1	1 mg/l (24 h; Daphnia magna)	
LC50 fish 2	2.4 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)	
EC50 Daphnia 2	0.56 mg/l (48 h; Daphnia magna)	
Threshold limit algae 1	136 μg/l (72 h; Selenastrum capricornutum; Growth rate)	
Threshold limit algae 2	24 μg/l (3 days; Selenastrum capricornutum; Growth rate)	

12.2. Persistence and degradability

Apex 21-7-6 Cool Weather with GAL-Xe ONE		
Persistence and degradability	Not established.	
Proprietary* (Not Applicable)		
Persistence and degradability	Not established.	
quartz (14808-60-7)		
Persistence and degradability	Biodegradability: not applicable. Not established.	
Biochemical oxygen demand (BOD)	Not applicable	
Chemical oxygen demand (COD)	Not applicable	
ThOD	Not applicable	
BOD (% of ThOD)	Not applicable	
copper(II)sulfate (7758-98-7)		
Persistence and degradability	May cause long-term adverse effects in the environment.	
Biochemical oxygen demand (BOD)	Not applicable	
Chemical oxygen demand (COD)	Not applicable	
ThOD	Not applicable	
BOD (% of ThOD)	Not applicable	
iron(II)sulfate (7720-78-7)		
Persistence and degradability	Biodegradability in water: no data available. No (test)data on mobility of the substance available. Not established.	
manganese(II)sulfate (7785-87-7)		
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the substance available. May cause long-term adverse effects in the environment.	
ThOD	Not applicable (inorganic)	
zinc sulfate (7733-02-0)		
Persistence and degradability	Biodegradability: not applicable. Not established.	
Biochemical oxygen demand (BOD)	Not applicable	
Chemical oxygen demand (COD)	Not applicable	
ThOD	Not applicable	
BOD (% of ThOD)	Not applicable	

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Iron Sucrate (8047-67-4)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Apex 21-7-6 Cool Weather with GAL-Xe ONE		
Bioaccumulative potential	Not established.	
Proprietary* (Not Applicable)		
Bioaccumulative potential	Not established.	
quartz (14808-60-7)		
Partition coefficient n-octanol/water (Log Pow)	Not applicable	
Bioaccumulative potential	No bioaccumulation data available. Not established.	
copper(II)sulfate (7758-98-7)		
Bioaccumulative potential	Bioaccumable.	
iron(II)sulfate (7720-78-7)		
BCF fish 1	2 – 20 (28 days; Cyprinus carpio; Heptahydrate)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500). Not established.	
manganese(II)sulfate (7785-87-7)		
Bioaccumulative potential	No bioaccumulation data available. Not established.	
zinc sulfate (7733-02-0)		
BCF fish 1	59 – 242 (Cyprinus carpio; Test duration: 8 weeks)	
Bioaccumulative potential	Bioaccumable. Not established.	
Iron Sucrate (8047-67-4)		
Bioaccumulative potential	Not established.	

12.4. Mobility in soil

copper(II)sulfate (7758-98-7)	
Ecology - soil	Toxic to flora.

12.5. Other adverse effects

Other information : Avoid unintentional release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Dispo

: Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid unintentional release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Other information : No supplementary information available.

Transportation of Dangerous Goods

Transport by sea

Air transport

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SECTION 15: Regulatory information

15.1. US Federal regulations

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All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

Proprietary*	CAS-No. Not Applicable	%
Iron Sucrate	CAS-No. 8047-67-4	1.25 – 8.125%

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

1300 and 40 Gr K Fait 372.				
copper(II)sulfate		CAS-No. 7758-98-7	%	
zinc sulfate		CAS-No. 7733-02-0	%	
copper(II)sulfate (7758-98-7)				
CERCLA RQ	10 lb			
iron(II)sulfate (7720-78-7)				
CERCLA RQ	1000 lb			
zinc sulfate (7733-02-0)				
CERCLA RQ	1000 lb			

15.2. International regulations

CANADA

Proprietary* (Not Applicable)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

quartz (14808-60-7)

Listed on the Canadian DSL (Domestic Substances List)

copper(II)sulfate (7758-98-7)

Listed on the Canadian DSL (Domestic Substances List)

iron(II)sulfate (7720-78-7)

Listed on the Canadian DSL (Domestic Substances List)

manganese(II)sulfate (7785-87-7)

Listed on the Canadian DSL (Domestic Substances List)

zinc sulfate (7733-02-0)

Listed on the Canadian DSL (Domestic Substances List)

Iron Sucrate (8047-67-4)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

EU-Regulations

No additional information available

National regulations

quartz (14808-60-7)

Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
copper(II)sulfate(7758-98-7)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List
iron(II)sulfate(7720-78-7)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List
zinc sulfate(7733-02-0)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List
quartz(14808-60-7)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List

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SECTION 16: Other information

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Revision date : 03/15/2024

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE

COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending

Regulation (EC) No 1907/2006.

Other information : None.

Full text of H-phrases:

H301	Toxic if swallowed
H302	Harmful if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage
H320	Causes eye irritation
H335	May cause respiratory irritation
H350	May cause cancer
H351	Suspected of causing cancer
H373	May cause damage to organs through prolonged or repeated exposure

SDS US (GHS HazCom 2012)

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