

Availa Fe 100

SECTION 1: IDENTIFICATION

1.1. Product identifier			
Trade name	Availa Fe 100		
Product no.	Availa Fe 100 US/Multiple		
1.2. Relevant identified uses of the substance or	r mixture and uses advised against		
Relevant identified uses of the			
substance or mixture	Nutritional feed ingredient		
	Restricted to professional users.		
Uses advised against	None known.		
1.3. Details of the supplier of the safety data sh	eet		
Company and address			
	ZINPRO		
	10400 Viking Drive, Suite 240		
	MN 55344 Eden Prairie		
	USA		
	Tel: + 01 952-983-4000		
F	www.zinpro.com		
E-mail	zinpro@zinpro.com		
SDS date	9/13/2023		
SDS Version	1.0		
1.4. Emergency telephone number			
	Contact the poison control at 1-800-222-1222 (24/7) or use the		
	webPOISONCONTROL® (triage.webpoisoncontrol.org) to get specific guidance		
	for your case		
	See also section 4 "First aid measures".		
SECTION 2: HAZARD(S) IDENTIFICATION			
OSHA/HCS status			
	This material is considered hazardous by the OSHA Hazard Communication		
	Standard (29 CFR 1910.1200)		
2.1. Classification of the substance or mixture			
	Acute Tox. 4; H302, Harmful if swallowed.		
	Eye Dam. 1; H318, Causes serious eye damage.		
2.2. Label elements			
Horord nictogram(c)			
Hazard pictogram(s)	\wedge \wedge		
Hazaru pictogram(s)			
Hazaru pictogram(s)			
Signal word	Danger		
	Harmful if swallowed. (H302)		
Signal word Hazard statement(s)	5		
Signal word Hazard statement(s) Precautionary statement(s)	Harmful if swallowed. (H302)		
Signal word Hazard statement(s) Precautionary statement(s) General	Harmful if swallowed. (H302) Causes serious eye damage. (H318) -		
Signal word Hazard statement(s) Precautionary statement(s)	Harmful if swallowed. (H302) Causes serious eye damage. (H318) - Wash hands and exposed skin thoroughly after handling. (P264)		
Signal word Hazard statement(s) Precautionary statement(s) General Prevention	Harmful if swallowed. (H302) Causes serious eye damage. (H318) - Wash hands and exposed skin thoroughly after handling. (P264) Wear eye protection. (P280)		
Signal word Hazard statement(s) Precautionary statement(s) General	Harmful if swallowed. (H302) Causes serious eye damage. (H318) - Wash hands and exposed skin thoroughly after handling. (P264) Wear eye protection. (P280) IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. (P301+P312)		
Signal word Hazard statement(s) Precautionary statement(s) General Prevention	Harmful if swallowed. (H302) Causes serious eye damage. (H318) - Wash hands and exposed skin thoroughly after handling. (P264) Wear eye protection. (P280) IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. (P301+P312) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact		
Signal word Hazard statement(s) Precautionary statement(s) General Prevention	Harmful if swallowed. (H302) Causes serious eye damage. (H318) - Wash hands and exposed skin thoroughly after handling. (P264) Wear eye protection. (P280) IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. (P301+P312) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)		
Signal word Hazard statement(s) Precautionary statement(s) General Prevention	Harmful if swallowed. (H302) Causes serious eye damage. (H318) - Wash hands and exposed skin thoroughly after handling. (P264) Wear eye protection. (P280) IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. (P301+P312) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338) Immediately call a POISON CENTER/doctor. (P310)		
Signal word Hazard statement(s) Precautionary statement(s) General Prevention Response	Harmful if swallowed. (H302) Causes serious eye damage. (H318) - Wash hands and exposed skin thoroughly after handling. (P264) Wear eye protection. (P280) IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. (P301+P312) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)		
Signal word Hazard statement(s) Precautionary statement(s) General Prevention Response Storage	Harmful if swallowed. (H302) Causes serious eye damage. (H318) - Wash hands and exposed skin thoroughly after handling. (P264) Wear eye protection. (P280) IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. (P301+P312) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338) Immediately call a POISON CENTER/doctor. (P310) Rinse mouth. (P330)		
Signal word Hazard statement(s) Precautionary statement(s) General Prevention Response	Harmful if swallowed. (H302) Causes serious eye damage. (H318) - Wash hands and exposed skin thoroughly after handling. (P264) Wear eye protection. (P280) IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. (P301+P312) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338) Immediately call a POISON CENTER/doctor. (P310)		



2.3. Other hazards

Additional warnings

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable. This product is a mixture.

3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Iron amino acid complex (as iron)	CAS No.:	10%	Acute Tox. 3, H301 Eye Dam. 1, H318	

Where the concentration of an ingredient is expressed as a range the exact concentration has been withheld as a trade secret.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

SECTION 4: FIRST-AID MEASURES

4.1. Description of first aid measures	
General information	If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911
	and give immediate treatment (first aid).
	Contact a doctor if in doubt about the injured person's condition or if the
	symptoms persist. Never give an unconscious person water or other drink.
Inhalation	Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.
Skin contact	Upon irritation: rinse with water. In the event of continued irritation, seek medical assistance.
Eye contact	If in eyes: Flush eyes with plenty of water or salt water (20-30 °C) for at least 30
	minutes and continue until irritation stops. Remove contact lenses. Make sure
	you flush under the upper and lower eyelids. Seek medical assistance
	immediately and continue flushing during transport.
Ingestion	In the case of ingestion, contact a doctor immediately. If the person is conscious,
	give them water. DO NOT try to induce vomiting unless this is recommended by
	a doctor. Hold head facing down to prevent vomit from returning to the mouth
	and throat. Prevent shock by keeping the injured person warm and calm. Initiate
	immediate resuscitation if breathing stops. If unconscious, roll the injured
During	person into recovery position. Call an ambulance.
Burns	Not applicable.
4.2. Most important symptoms and effects, l	•
	The product contains substances that cause serious eye damage. Contact with
4.2. Tradication of any improvediate medical at	these substances can cause irreversible effects on the eye / serious eye damage.
4.3. Indication of any immediate medical att	IF exposed or concerned:
	Get immediate medical advice/attention.
Information to medics	
information to medics	Bring this safety data sheet or the label from this product.
SECTION 5: FIRE-FIGHTING MEASURE	S
5.1. Extinguishing media	
-	

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.



5.2. Special hazards arising from the substance or mixture

	Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.
5.3. Advice for firefighters	
-	Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact the Poison Help Line on 1-800-222-1222 (24/7) in order to obtain further advice.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equi	pment and emergency procedures
	Avoid direct contact with spilled substances.
	Contaminated areas may be slippery.
6.2. Environmental precautions	
	Avoid discharge to lakes, streams, sewers, etc.
	Keep unauthorized persons away from the spill
6.3. Methods and material for containmer	nt and cleaning up
	Minor spills are collected with a cloth. Collection and disposal of the material shall be done with minimum creation of dust. Sweep and collect. Shall be contained in suitable and tightly closed disposal containers. Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.
6.4. Reference to other sections	
	See section 13 "Disposal considerations" on handling of waste.
	See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling	
	Avoid direct contact with the product.
	Smoking, drinking and consumption of food is not allowed in the work area.
	See section 8 "Exposure controls/personal protection" for information on personal protection.
7.2. Conditions for safe storage, including any	v incompatibilities
	Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
	Powder trickling out onto the floor or onto other containers must be prevented.
Recommended storage material	
_	Always store in containers of the same material as the original container.
Storage temperature	
2 .	No specific requirements
Incompatible materials	
·	Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.
7.3. Specific end use(s)	
• • • •	This product should only be used for applications quoted in section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters	No substances are listed with a permissible exposure limit (ref: 29 CFR 1910.1000 TABLE Z-1)
8.2. Exposure controls	
	Control is unnecessary if the product is used as intended.
General recommendations	Smoking, drinking and consumption of food is not allowed in the work area.
Exposure scenarios	There are no exposure scenarios implemented for this product.
Exposure limits	Occupational exposure limits have not been defined for the substances in this product.
Appropriate technical measures	



Indiv	Hygiene measures Measures to avoid envir exposure idual protection measure Generally Respiratory Equipment Skin protection		Apply standard precautions during use dust. Ensure that eyewash stations and safet In between use of the product and at the areas of the body must be washed thor and face. No specific requirements. protective equipment Use only protective equipment with a r mark. No specific requirements	y showers are located within ne end of the working day al roughly. Always wash hands	n easy reach. l exposed , forearms
	Recommended	Type/Category	Standards		
	Dedicated work clothing should be worn.	-	-		R
	Hand protection				
	Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
	Gloves	-	-	EN374	
	Eye protection				
	Туре	Standards			
	Safety glasses	EN166			

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Granulate		
Colour	Brown		
Odour	Sweet		
Odour threshold (ppm)	Testing not relevant or not possible due to the nature of the product.		
рН	Not applicable		
Density (g/cm³)	No data available		
Relative density	No data available		
Kinematic viscosity	No data available		
Phase changes			
Melting point (°F)			
Melting point (°C)	>200		
Softening point/range (waxes and			
pastes) (°F)	Does not apply to solids.		
Boiling point (°F)	No data available		
Vapour pressure	Not applicable		
Vapour density	Does not apply to solids.		
Decomposition temperature (°F)			
	Not applicable		
Evaporation rate (n-butylacetate = 100)	Not applicable		
Data on fire and explosion hazards			
Flash point (°F)			





	Does not apply to solids.
Flash point (°C)	0
Flammability (°F)	No data available
Auto-ignition temperature (°F)	
Auto-ignition temperature (°C)	>200
Explosion limits (% v/v)	Does not apply to solids.
Solubility	
Solubility in water	Soluble
n-octanol/water coefficient	Testing not relevant or not possible due to the nature of the product.
Solubility in fat (g/L)	Testing not relevant or not possible due to the nature of the product.
9.2. Other information	
Evaporation rate (n-butylacetate = 100)	Not applicable
Other physical and chemical	
parameters	No data available.
Oxidizing properties	No data available
SECTION 10: STABILITY AND REACTIVITY	,
SECTION TO. STABILITY AND REACTIVITY	
10.1. Reactivity	
	No data available.
10.2. Chemical stability	
	The product is stable under the conditions, noted in section 7 "Handling and
	storage".
10.3. Possibility of hazardous reactions	
	None known.
10.4. Conditions to avoid	
	None known.
10.5. Incompatible materials	
	Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

SECTION 11: TOXICOLOGICAL INFORMATION

1. Information on toxicological effects		
Acute toxicity	Harmful if swallowed	J.
Skin corrosion/irritation		
	Product/substance	Iron amino acid complex (as iron)
	Test method:	OECD 404
	Species:	Rabbit, New Zealand White, female
	Duration:	No data available.
	Result:	No adverse effect observed (Not irritating)
Serious eye damage/irritation		
	Product/substance	Iron amino acid complex (as iron)
	Test method:	OECD 405
	Species:	Rabbit, New Zealand White, female
	Duration:	No data available.
	Result:	Adverse effect observed (Causes serious eye damage)
	Causes serious eye d	lamage.
Respiratory sensitisation		ata, the classification criteria are not met.
Skin sensitisation	Based on available d	ata, the classification criteria are not met.
Germ cell mutagenicity		ata, the classification criteria are not met.
Carcinogenicity	Based on available d	ata, the classification criteria are not met.
Reproductive toxicity	Based on available d	ata, the classification criteria are not met.
STOT-single exposure	Based on available d	ata, the classification criteria are not met.
STOT-repeated exposure		

The product is not degraded when used as specified in section 1.



Achivation bazard	Based on available data, the classification criteria are not met.
Aspiration hazard Long term effects	Based on available data, the classification criteria are not met. The product contains substances that cause serious eye damage. Contact with these substances can cause irreversible effects on the eye / serious eye damage.
Other information	None known.
SECTION 12: ECOLOGICAL INFORMATIC)N
12.1. Toxicity	
12.2. Persistence and degradability	No data available.
	No data available.
12.3. Bioaccumulative potential	No data available.
12.4. Mobility in soil	
12.5. Results of PBT and vPvB assessment	No data available.
	This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.
12.6. Other adverse effects	None known.
SECTION 13: DISPOSAL CONSIDERATION	NS
RCRA Hazardous waste ("P" and "U" list) (40 CFI	
Specific labelling	None of the components are listed

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: TRANSPORT INFORMATION

14.1 UN / ID 14.2 UN pro	oper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
dot			-	No	See below for additional information.
IMDG			-	No	See below for additional information.
IATA			-	No	See below for additional information.
		cking group nvironmental hazards			
dditional information					
	Not dangerous goods according to DOT, IATA and IMDG.				i.
4.6. Special precautions for user					
	Nota	applicable.			
4.7. Transport in bulk according	to Annex II of Marpo	and the IBC Code			
	No d	ata available.			

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixt	ure
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15.2. U.S. Federal regulations	
TSCA	None of the components are listed
Clean Air Act	None of the components are listed
EPCRA Section 302	None of the components are listed
EPCRA Section 304	





	None of the components are listed
EPCRA section 313	None of the components are listed
CERCLA	None of the components are listed
State regulations	
California / Prop. 65	None of the components are listed
Massachusetts / Right To Know Act	None of the components are listed
New Jersey / Right To Know Act	None of the components are listed
New York / Right To Know Act	None of the components are listed
Pennsylvania / Right To Know Act	None of the components are listed
15.4. Restrictions for application	
	Restricted to professional users.
15.5. Demands for specific education	
	No specific requirements.
15.6. Additional information	
	Not applicable.
15.7. Chemical safety assessment	
	No
15.8. Sources	
	1993 Hazardous Substances Law
	OSHA Hazard Communication Standard (29 CFR 1910.1200)

SECTION 16: OTHER INFORMATION

Full text of H-phrases as mentioned in section 3	
·	H301, Toxic if swallowed.
	H318, Causes serious eye damage.
The full text of identified uses as mentioned in s	
	None known.
Abbreviations and acronyms	
	ACGIH = American Conference of Governmental Industrial Hygienists
	ADN = European Provisions concerning the International Carriage of Dangerous
	Goods by Inland Waterway
	ADR = The European Agreement concerning the International Carriage of
	Dangerous Goods by Road
	ATE = Acute Toxicity Estimate
	BCF = Bioconcentration Factor
	CAS = Chemical Abstracts Service
	CERCLA = Comprehensive Environmental Response Compensation and Liability
	Act
	DOT = Department of Transportation
	EINECS = European Inventory of Existing Commercial chemical Substances
	EPCRA = Emergency Planning and Community Right-To-Know Act
	GHS = Globally Harmonized System of Classification and Labelling of Chemicals
	HCIS = Hazardous Chemical Information System
	HNOC = Hazards Not Otherwise Classified
	IARC = International Agency for Research on Cancer
	IATA = International Air Transport Association
	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)
	NFPA = National Fire Protection Association
	NIOSH = National Institute for Occupational Safety and Health
	OECD = Organisation for Economic Co-operation and Development
	OSHA = Occupational Safety and Health Administration
	PBT = Persistent, Bioaccumulative and Toxic
	RCRA = Resource Conservation and Recovery Act
	RID = The Regulations concerning the International Carriage of Dangerous
	Goods by Rail
	RRN = REACH Registration Number
	SARA = Superfund Amendments and Reauthorization Act
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	SCL = A specific concentration limit.
	STEL = Short-term exposure limits
	STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
	STOT-SE = Specific Target Organ Toxicity - Single Exposure
	TSCA = The Toxic Substances Control Act
	TWA = Time weighted average
	UN = United Nations
	UVBC = Unknown or variable composition, complex reaction products or of biological materials
	VOC = Volatile Organic Compound
	vPvB = Very Persistent and Very Bioaccumulative
	The classification of the mixture in regard of health hazards is in accordance with the calculation methods given by HCS (29 CFR 1910.1200).
/	Amy Reid
	A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.
	The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.
	It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.
	Country-language: US-en

Additional information

The safety data sheet is validated by

Other