

Form 5500 Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Annual Return/Report of Employee Benefit Plan This form is required to be filed for employee benefit plans under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code). ▶ Complete all entries in accordance with the instructions to the Form 5500.	OMB Nos. 1210-0110 1210-0089 2023 This Form is Open to Public Inspection
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Part I	Annual Report Identification Information
For calendar plan year 2023 or fiscal plan year beginning 01/01/2023 and ending 12/31/2023	
A	This return/report is for: ☐ a multiemployer plan ☐ a multiple-employer plan (Filers checking this box must provide participating employer information in accordance with the form instructions.) ☒ a single-employer plan ☐ a DFE (specify) _____ ☐ the first return/report ☐ the final return/report ☐ an amended return/report ☐ a short plan year return/report (less than 12 months)
C	If the plan is a collectively-bargained plan, check here. ▶ ☐
D	Check box if filing under: ☒ Form 5558 ☐ automatic extension ☐ the DFVC program ☐ special extension (enter description)
E	If this is a retroactively adopted plan permitted by SECURE Act section 201, check here. ▶ ☐

Part II	Basic Plan Information—enter all requested information
1a	Name of plan ALTO INGREDIENTS, INC. 401(K) PLAN
1b	Three-digit plan number (PN) ▶ 002
1c	Effective date of plan 07/01/1991
2a	Plan sponsor's name (employer, if for a single-employer plan) Mailing address (include room, apt., suite no. and street, or P.O. Box) City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions) ALTO INGREDIENTS, INC. 1300 S 2ND ST PEKIIN, IL 61554
2b	Employer Identification Number (EIN) 41-2170618
2c	Plan Sponsor's telephone number 309-347-9334
2d	Business code (see instructions) 221210

Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established.

Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including accompanying schedules, statements and attachments, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.

SIGN HERE	Filed with authorized/valid electronic signature.	10/14/2024	EDWARD BAKER
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE	Filed with authorized/valid electronic signature.	10/14/2024	EDWARD BAKER
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor
SIGN HERE			
	Signature of DFE	Date	Enter name of individual signing as DFE

3a Plan administrator's name and address ☒ Same as Plan Sponsor	3b Administrator's EIN 3c Administrator's telephone number
4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report: a Sponsor's name c Plan Name	4b EIN 4d PN
5 Total number of participants at the beginning of the plan year	5 560
6 Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines 6a(1) , 6a(2) , 6b , 6c , and 6d). a(1) Total number of active participants at the beginning of the plan year a(2) Total number of active participants at the end of the plan year b Retired or separated participants receiving benefits c Other retired or separated participants entitled to future benefits d Subtotal. Add lines 6a(2) , 6b , and 6c e Deceased participants whose beneficiaries are receiving or are entitled to receive benefits f Total. Add lines 6d and 6e g(1) Number of participants with account balances as of the beginning of the plan year (only defined contribution plans complete this item) g(2) Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item) h Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested	6a(1) 407 6a(2) 426 6b 0 6c 117 6d 543 6e 1 6f 544 6g(1) 528 6g(2) 541 6h 24
7 Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item)	7

8a If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristics Codes in the instructions:
 2E 2G 2J 2K 2S 2T 3D

b If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristics Codes in the instructions:

9a Plan funding arrangement (check all that apply) (1) ☐ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor	9b Plan benefit arrangement (check all that apply) (1) ☐ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor
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10 Check all applicable boxes in 10a and 10b to indicate which schedules are attached, and, where indicated, enter the number attached. (See instructions)

a Pension Schedules

- (1) ☒ **R** (Retirement Plan Information)
- (2) ☐ **MB** (Multiemployer Defined Benefit Plan and Certain Money Purchase Plan Actuarial Information) - signed by the plan actuary
- (3) ☐ **SB** (Single-Employer Defined Benefit Plan Actuarial Information) - signed by the plan actuary
- (4) ☐ **DCG** (Individual Plan Information) – Number Attached 0
- (5) ☐ **MEP** (Multiple-Employer Retirement Plan Information)

b General Schedules

- (1) ☒ **H** (Financial Information)
- (2) ☐ **I** (Financial Information – Small Plan)
- (3) ☐ **A** (Insurance Information) – Number Attached _____
- (4) ☒ **C** (Service Provider Information)
- (5) ☒ **D** (DFE/Participating Plan Information)
- (6) ☐ **G** (Financial Transaction Schedules)

Part III Form M-1 Compliance Information (to be completed by welfare benefit plans)

11a If the plan provides welfare benefits, was the plan subject to the Form M-1 filing requirements during the plan year? (See instructions and 29 CFR 2520.101-2.) ☐ Yes ☐ No

If "Yes" is checked, complete lines 11b and 11c.

11b Is the plan currently in compliance with the Form M-1 filing requirements? (See instructions and 29 CFR 2520.101-2.) ☐ Yes ☐ No

11c Enter the Receipt Confirmation Code for the 2023 Form M-1 annual report. If the plan was not required to file the 2023 Form M-1 annual report, enter the Receipt Confirmation Code for the most recent Form M-1 that was required to be filed under the Form M-1 filing requirements. (Failure to enter a valid Receipt Confirmation Code will subject the Form 5500 filing to rejection as incomplete.)

Receipt Confirmation Code _____

SCHEDULE C (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Service Provider Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA). ▶ File as an attachment to Form 5500.	OMB No. 1210-0110
		2023
		This Form is Open to Public Inspection.

For calendar plan year 2023 or fiscal plan year beginning 01/01/2023 and ending 12/31/2023		
A Name of plan ALTO INGREDIENTS, INC. 401(K) PLAN	B Three-digit plan number (PN) ▶	002
C Plan sponsor's name as shown on line 2a of Form 5500 ALTO INGREDIENTS, INC.	D Employer Identification Number (EIN) 41-2170618	

Part I	Service Provider Information (see instructions)
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You must complete this Part, in accordance with the instructions, to report the information required for **each person** who received, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of monetary value) in connection with services rendered to the plan or the person's position with the plan during the plan year. If a person received **only** eligible indirect compensation for which the plan received the required disclosures, you are required to answer line 1 but are not required to include that person when completing the remainder of this Part.

1 Information on Persons Receiving Only Eligible Indirect Compensation

- a Check "Yes" or "No" to indicate whether you are excluding a person from the remainder of this Part because they received only eligible indirect compensation for which the plan received the required disclosures (see instructions for definitions and conditions).. ☒ Yes ☐ No
- b If you answered line 1a "Yes," enter the name and EIN or address of each person providing the required disclosures for the service providers who received only eligible indirect compensation. Complete as many entries as needed (see instructions).

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation
PRINCIPAL LIFE INSURANCE COMPANY
42-0127290

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation
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(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

PRINCIPAL LIFE INSURANCE COMPANY

42-0127290

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
13 37 50 64	CONTRACT ADMINISTRATOR	99001	Yes ☒ No ☐	Yes ☒ No ☐	0	Yes ☐ No ☒

(a) Enter name and EIN or address (see instructions)

SAGEVIEW ADVISORY CONSULTING GROUP

33-0818667

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
27 99	INVESTMENT ADVISORY	0	Yes ☒ No ☐	Yes ☐ No ☒	30000	Yes ☐ No ☒

(a) Enter name and EIN or address (see instructions)

MORNINGSTAR INVESTMENT MANAGEMENT L

36-4317381

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
26 70	INV ADV, PARTICIPANTS	0	Yes ☒ No ☐	Yes ☐ No ☒	0	Yes ☒ No ☐

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received \$1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
SAGEVIEW ADVISORY CONSULTING GROUP	27 99	30000

(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.
PRINCIPAL LIFE INSURANCE COMPANY 42-0127290	INVESTMENT ADVISORY (PLAN)

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
MORNINGSTAR INVESTMENT MANAGEMENT L	26 70	0

(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.
PRINCIPAL LIFE INSURANCE COMPANY 42-0127290	14 BASIS POINTS ON ASSETS MANAGED BY MORNINGSTAR INVESTMENT MANAGEMENT LLC

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation

(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.

Part II Service Providers Who Fail or Refuse to Provide Information

4 Provide, to the extent possible, the following information for each service provider who failed or refused to provide the information necessary to complete this Schedule.

(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
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(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide

Part III Termination Information on Accountants and Enrolled Actuaries (see instructions)
(complete as many entries as needed)

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
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103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
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103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)

Part II Information on Participating Plans (to be completed by DFEs, other than DCGs)

(Complete as many entries as needed to report all participating plans. DCGs must report each participating plan using Schedule DCG.)

a Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN

SCHEDULE H (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Financial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA), and section 6058(a) of the Internal Revenue Code (the Code). ▶ File as an attachment to Form 5500.	OMB No. 1210-0110
		2023
		This Form is Open to Public Inspection

For calendar plan year 2023 or fiscal plan year beginning 01/01/2023 and ending 12/31/2023		
A Name of plan ALTO INGREDIENTS, INC. 401(K) PLAN	B Three-digit plan number (PN) ▶	002
C Plan sponsor's name as shown on line 2a of Form 5500 ALTO INGREDIENTS, INC.		
D Employer Identification Number (EIN) 41-2170618		

Part I	Asset and Liability Statement
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1 Current value of plan assets and liabilities at the beginning and end of the plan year. Combine the value of plan assets held in more than one trust. Report the value of the plan's interest in a commingled fund containing the assets of more than one plan on a line-by-line basis unless the value is reportable on lines 1c(9) through 1c(14). Do not enter the value of that portion of an insurance contract which guarantees, during this plan year, to pay a specific dollar benefit at a future date. **Round off amounts to the nearest dollar.** MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 1b(1), 1b(2), 1c(8), 1g, 1h, and 1i. CCTs, PSAs, and 103-12 IEs also do not complete lines 1d and 1e. See instructions.

Assets		(a) Beginning of Year	(b) End of Year
a Total noninterest-bearing cash	1a		
b Receivables (less allowance for doubtful accounts):			
(1) Employer contributions	1b(1)		
(2) Participant contributions	1b(2)		
(3) Other	1b(3)		
c General investments:			
(1) Interest-bearing cash (include money market accounts & certificates of deposit)	1c(1)		
(2) U.S. Government securities	1c(2)		
(3) Corporate debt instruments (other than employer securities):			
(A) Preferred	1c(3)(A)		
(B) All other	1c(3)(B)		
(4) Corporate stocks (other than employer securities):			
(A) Preferred	1c(4)(A)		
(B) Common	1c(4)(B)		
(5) Partnership/joint venture interests	1c(5)		
(6) Real estate (other than employer real property)	1c(6)		
(7) Loans (other than to participants)	1c(7)		
(8) Participant loans	1c(8)	1492836	1860899
(9) Value of interest in common/collective trusts	1c(9)	5789458	6042303
(10) Value of interest in pooled separate accounts	1c(10)		
(11) Value of interest in master trust investment accounts	1c(11)		
(12) Value of interest in 103-12 investment entities	1c(12)		
(13) Value of interest in registered investment companies (e.g., mutual funds)	1c(13)	50394317	61576936
(14) Value of funds held in insurance company general account (unallocated contracts)	1c(14)		
(15) Other	1c(15)		

1d Employer-related investments:		(a) Beginning of Year	(b) End of Year
(1) Employer securities	1d(1)		
(2) Employer real property	1d(2)		
e Buildings and other property used in plan operation	1e		
f Total assets (add all amounts in lines 1a through 1e)	1f	57676611	69480138
Liabilities			
g Benefit claims payable	1g		
h Operating payables	1h		
i Acquisition indebtedness	1i		
j Other liabilities	1j		
k Total liabilities (add all amounts in lines 1g through 1j)	1k	0	0
Net Assets			
l Net assets (subtract line 1k from line 1f)	1l	57676611	69480138

Part II Income and Expense Statement

2 Plan income, expenses, and changes in net assets for the year. Include all income and expenses of the plan, including any trust(s) or separately maintained fund(s) and any payments/receipts to/from insurance carriers. Round off amounts to the nearest dollar. MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 2a, 2b(1)(E), 2e, 2f, and 2g.

Income		(a) Amount	(b) Total
a Contributions:			
(1) Received or receivable in cash from: (A) Employers	2a(1)(A)	2129672	
(B) Participants	2a(1)(B)	3338128	
(C) Others (including rollovers)	2a(1)(C)	420803	
(2) Noncash contributions	2a(2)		
(3) Total contributions. Add lines 2a(1)(A) , (B) , (C) , and line 2a(2)	2a(3)		5888603
b Earnings on investments:			
(1) Interest:			
(A) Interest-bearing cash (including money market accounts and certificates of deposit)	2b(1)(A)		
(B) U.S. Government securities	2b(1)(B)		
(C) Corporate debt instruments	2b(1)(C)		
(D) Loans (other than to participants)	2b(1)(D)		
(E) Participant loans	2b(1)(E)	105922	
(F) Other	2b(1)(F)		
(G) Total interest. Add lines 2b(1)(A) through (F)	2b(1)(G)		105922
(2) Dividends: (A) Preferred stock	2b(2)(A)		
(B) Common stock	2b(2)(B)		
(C) Registered investment company shares (e.g. mutual funds)	2b(2)(C)	1033244	
(D) Total dividends. Add lines 2b(2)(A) , (B) , and (C)	2b(2)(D)		1033244
(3) Rents	2b(3)		
(4) Net gain (loss) on sale of assets: (A) Aggregate proceeds	2b(4)(A)		
(B) Aggregate carrying amount (see instructions)	2b(4)(B)		
(C) Subtract line 2b(4)(B) from line 2b(4)(A) and enter result	2b(4)(C)		
(5) Unrealized appreciation (depreciation) of assets: (A) Real estate	2b(5)(A)		
(B) Other	2b(5)(B)		
(C) Total unrealized appreciation of assets. Add lines 2b(5)(A) and (B)	2b(5)(C)		

		(a) Amount	(b) Total
(6) Net investment gain (loss) from common/collective trusts.....	2b(6)		150518
(7) Net investment gain (loss) from pooled separate accounts.....	2b(7)		
(8) Net investment gain (loss) from master trust investment accounts.....	2b(8)		
(9) Net investment gain (loss) from 103-12 investment entities.....	2b(9)		
(10) Net investment gain (loss) from registered investment companies (e.g., mutual funds)	2b(10)		8444639
c Other income	2c		68
d Total income. Add all income amounts in column (b) and enter total	2d		15622994

Expenses

e Benefit payment and payments to provide benefits:			
(1) Directly to participants or beneficiaries, including direct rollovers	2e(1)	3720466	
(2) To insurance carriers for the provision of benefits.....	2e(2)		
(3) Other	2e(3)		
(4) Total benefit payments. Add lines 2e(1) through (3)	2e(4)		3720466
f Corrective distributions (see instructions)	2f		
g Certain deemed distributions of participant loans (see instructions)	2g		
h Interest expense	2h		
i Administrative expenses:			
(1) Salaries and allowances	2i(1)		
(2) Contract administrator fees.....	2i(2)	99001	
(3) Recordkeeping fees.....	2i(3)		
(4) IQPA audit fees.....	2i(4)		
(5) Investment advisory and investment management fees	2i(5)		
(6) Bank or trust company trustee/custodial fees	2i(6)		
(7) Actuarial fees	2i(7)		
(8) Legal fees	2i(8)		
(9) Valuation/appraisal fees	2i(9)		
(10) Other trustee fees and expenses	2i(10)		
(11) Other expenses	2i(11)		
(12) Total administrative expenses. Add lines 2i(1) through (11)	2i(12)		99001
j Total expenses. Add all expense amounts in column (b) and enter total	2j		3819467

Net Income and Reconciliation

k Net income (loss). Subtract line 2j from line 2d	2k		11803527
l Transfers of assets:			
(1) To this plan	2l(1)		
(2) From this plan	2l(2)		

Part III Accountant's Opinion

3 Complete lines 3a through 3c if the opinion of an independent qualified public accountant is attached to this Form 5500. Complete line 3d if an opinion is not attached.

a The attached opinion of an independent qualified public accountant for this plan is (see instructions):

(1) ☒ Unmodified (2) ☐ Qualified (3) ☐ Disclaimer (4) ☐ Adverse

b Check the appropriate box(es) to indicate whether the IQPA performed an ERISA section 103(a)(3)(C) audit. Check both boxes (1) and (2) if the audit was performed pursuant to both 29 CFR 2520.103-8 and 29 CFR 2520.103-12(d). Check box (3) if pursuant to neither.

(1) ☒ DOL Regulation 2520.103-8 (2) ☐ DOL Regulation 2520.103-12(d) (3) ☐ neither DOL Regulation 2520.103-8 nor DOL Regulation 2520.103-12(d).

c Enter the name and EIN of the accountant (or accounting firm) below:

(1) Name: **RSM US LLP**

(2) EIN: **42-0714325**

d The opinion of an independent qualified public accountant is **not attached** as part of Schedule H because:

(1) ☐ This form is filed for a CCT, PSA, DCG or MTIA. (2) ☐ It will be attached to the next Form 5500 pursuant to 29 CFR 2520.104-50.

Part IV Compliance Questions

4 CCTs and PSAs do not complete Part IV. MTIAs, 103-12 IEs, and GIAs do not complete lines 4a, 4e, 4f, 4g, 4h, 4k, 4m, 4n, or 5. 103-12 IEs also do not complete lines 4j and 4l. MTIAs also do not complete line 4l. DCGs do not complete lines 4e, 4f, 4k, 4l, and 5, and DCGs generally complete the rest of Part IV collectively for all plans in the DCG, except as otherwise provided (see instructions).

During the plan year:

	Yes	No	Amount
a Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? Continue to answer "Yes" for any prior year failures until fully corrected. (See instructions and DOL's Voluntary Fiduciary Correction Program.)		☒	
b Were any loans by the plan or fixed income obligations due the plan in default as of the close of the plan year or classified during the year as uncollectible? Disregard participant loans secured by participant's account balance. (Attach Schedule G (Form 5500) Part I if "Yes" is checked.)		☒	
c Were any leases to which the plan was a party in default or classified during the year as uncollectible? (Attach Schedule G (Form 5500) Part II if "Yes" is checked.)		☒	
d Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 4a. Attach Schedule G (Form 5500) Part III if "Yes" is checked.)		☒	
e Was this plan covered by a fidelity bond?	☒		500000
f Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?		☒	
g Did the plan hold any assets whose current value was neither readily determinable on an established market nor set by an independent third party appraiser?		☒	
h Did the plan receive any noncash contributions whose value was neither readily determinable on an established market nor set by an independent third party appraiser?		☒	
i Did the plan have assets held for investment? (Attach schedule(s) of assets if "Yes" is checked, and see instructions for format requirements.)	☒		
j Were any plan transactions or series of transactions in excess of 5% of the current value of plan assets? (Attach schedule of transactions if "Yes" is checked and see instructions for format requirements.)		☒	
k Were all the plan assets either distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?		☒	
l Has the plan failed to provide any benefit when due under the plan?		☒	
m If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)		☒	
n If 4m was answered "Yes," check the "Yes" box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3.			

5a Has a resolution to terminate the plan been adopted during the plan year or any prior plan year? ☐ Yes ☒ No
If "Yes," enter the amount of any plan assets that reverted to the employer this year _____.

5b If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)

5b(1) Name of plan(s)	5b(2) EIN(s)	5b(3) PN(s)

5c Was the plan a defined benefit plan covered under the PBGC insurance program at any time during this plan year? (See ERISA section 4021 and instructions.) ☐ Yes ☐ No ☐ Not determined

If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year _____.

SCHEDULE R (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Retirement Plan Information This schedule is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6058(a) of the Internal Revenue Code (the Code). ▶ File as an attachment to Form 5500.	OMB No. 1210-0110 2023 This Form is Open to Public Inspection.
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For calendar plan year 2023 or fiscal plan year beginning 01/01/2023 and ending 12/31/2023		
A Name of plan	B Three-digit plan number (PN)	
ALTO INGREDIENTS, INC. 401(K) PLAN	002	
C Plan sponsor's name as shown on line 2a of Form 5500	D Employer Identification Number (EIN)	
ALTO INGREDIENTS, INC.	41-2170618	

Part I	Distributions		
All references to distributions relate only to payments of benefits during the plan year.			
1	Total value of distributions paid in property other than in cash or the forms of property specified in the instructions.....	1	0
2	Enter the EIN(s) of payor(s) who paid benefits on behalf of the plan to participants or beneficiaries during the year (if more than two, enter EINs of the two payors who paid the greatest dollar amounts of benefits):		
	EIN(s):	42-0127290	
Profit-sharing plans, ESOPs, and stock bonus plans, skip line 3.			
3	Number of participants (living or deceased) whose benefits were distributed in a single sum, during the plan year	3	

Part II	Funding Information (If the plan is not subject to the minimum funding requirements of section 412 of the Internal Revenue Code or ERISA section 302, skip this Part.)			
4	Is the plan administrator making an election under Code section 412(d)(2) or ERISA section 302(d)(2)?	☐ Yes	☐ No	☐ N/A
If the plan is a defined benefit plan, go to line 8.				
5	If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions and enter the date of the ruling letter granting the waiver. Date: Month _____ Day _____ Year _____			
If you completed line 5, complete lines 3, 9, and 10 of Schedule MB and do not complete the remainder of this schedule.				
6	a Enter the minimum required contribution for this plan year (include any prior year accumulated funding deficiency not waived)	6a		
	b Enter the amount contributed by the employer to the plan for this plan year	6b		
	c Subtract the amount in line 6b from the amount in line 6a. Enter the result (enter a minus sign to the left of a negative amount)	6c		
If you completed line 6c, skip lines 8 and 9.				
7	Will the minimum funding amount reported on line 6c be met by the funding deadline?	☐ Yes	☐ No	☐ N/A
8	If a change in actuarial cost method was made for this plan year pursuant to a revenue procedure or other authority providing automatic approval for the change or a class ruling letter, does the plan sponsor or plan administrator agree with the change?	☐ Yes	☐ No	☐ N/A

Part III	Amendments				
9	If this is a defined benefit pension plan, were any amendments adopted during this plan year that increased or decreased the value of benefits? If yes, check the appropriate box. If no, check the "No" box.	☐ Increase	☐ Decrease	☐ Both	☐ No

Part IV	ESOPs (see instructions). If this is not a plan described under section 409(a) or 4975(e)(7) of the Internal Revenue Code, skip this Part.		
10	Were unallocated employer securities or proceeds from the sale of unallocated securities used to repay any exempt loan?	☐ Yes	☐ No
11	a Does the ESOP hold any preferred stock?	☐ Yes	☐ No
	b If the ESOP has an outstanding exempt loan with the employer as lender, is such loan part of a "back-to-back" loan? (See instructions for definition of "back-to-back" loan.)	☐ Yes	☐ No
12	Does the ESOP hold any stock that is not readily tradable on an established securities market?	☐ Yes	☐ No

Part V Additional Information for Multiemployer Defined Benefit Pension Plans

13 Enter the following information for each employer that (1) contributed more than 5% of total contributions to the plan during the plan year or (2) was one of the top-ten highest contributors (measured in dollars). See instructions. *Complete as many entries as needed to report all applicable employers.*

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

14 Enter the number of deferred vested and retired participants (inactive participants), as of the beginning of the plan year, whose contributing employer is no longer making contributions to the plan for:		
a The current plan year. Check the box to indicate the counting method used to determine the number of inactive participants: ☐ last contributing employer ☐ alternative ☐ reasonable approximation (see instructions for required attachment)	14a	
b The plan year immediately preceding the current plan year. ☐ Check the box if the number reported is a change from what was previously reported (see instructions for required attachment)	14b	
c The second preceding plan year. ☐ Check the box if the number reported is a change from what was previously reported (see instructions for required attachment)	14c	
15 Enter the ratio of the number of participants under the plan on whose behalf no employer had an obligation to make an employer contribution during the current plan year to:		
a The corresponding number for the plan year immediately preceding the current plan year	15a	
b The corresponding number for the second preceding plan year	15b	
16 Information with respect to any employers who withdrew from the plan during the preceding plan year:		
a Enter the number of employers who withdrew during the preceding plan year	16a	
b If line 16a is greater than 0, enter the aggregate amount of withdrawal liability assessed or estimated to be assessed against such withdrawn employers	16b	
17 If assets and liabilities from another plan have been transferred to or merged with this plan during the plan year, check box and see instructions regarding supplemental information to be included as an attachment..... ☐		

Part VI	Additional Information for Single-Employer and Multiemployer Defined Benefit Pension Plans
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18 If any liabilities to participants or their beneficiaries under the plan as of the end of the plan year consist (in whole or in part) of liabilities to such participants and beneficiaries under two or more pension plans as of immediately before such plan year, check box and see instructions regarding supplemental information to be included as an attachment..... ☐	
19 If the total number of participants is 1,000 or more, complete lines (a) and (b):	
a Enter the percentage of plan assets held as: Public Equity: _____% Private Equity: _____% Investment-Grade Debt and Interest Rate Hedging Assets: _____% High-Yield Debt: _____% Real Assets: _____% Cash or Cash Equivalents: _____% Other: _____%	
b Provide the average duration of the Investment-Grade Debt and Interest Rate Hedging Assets: ☐ 0-5 years ☐ 5-10 years ☐ 10-15 years ☐ 15 years or more	
20 PBGC missed contribution reporting requirements. If this is a multiemployer plan or a single-employer plan that is not covered by PBGC, skip line 20.	
a Is the amount of unpaid minimum required contributions for all years from Schedule SB (Form 5500) line 40 greater than zero? ☐ Yes ☐ No	
b If line 20a is "Yes," has PBGC been notified as required by ERISA sections 4043(c)(5) and/or 303(k)(4)? Check the applicable box:	
☐ Yes.	
☐ No. Reporting was waived under 29 CFR 4043.25(c)(2) because contributions equal to or exceeding the unpaid minimum required contribution were made by the 30th day after the due date.	
☐ No. The 30-day period referenced in 29 CFR 4043.25(c)(2) has not yet ended, and the sponsor intends to make a contribution equal to or exceeding the unpaid minimum required contribution by the 30th day after the due date.	
☐ No. Other. Provide explanation. _____	

Part VII	IRS Compliance Questions
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21a Does the plan satisfy the coverage and nondiscrimination tests of Code sections 410(b) and 401(a)(4) by combining this plan with any other plans under the permissive aggregation rules? ☐ Yes ☒ No	
21b If this is a Code section 401(k) plan, check all boxes that apply to indicate how the plan is intended to satisfy the nondiscrimination requirements for employee deferrals and employer matching contributions (as applicable) under Code sections 401(k)(3) and 401(m)(2).	
☐ Design-based safe harbor method	
☐ "Prior year" ADP test	
☒ "Current year" ADP test	
☐ N/A	
22 If the plan sponsor is an adopter of a pre-approved plan that received a favorable IRS Opinion Letter, enter the date of the Opinion Letter <u>06 / 30 / 2020</u> (MM/DD/YYYY) and the Opinion Letter serial number <u>Q702477A</u> .	

Alto Ingredients, Inc.

401(k) Plan

Financial Report
December 31, 2023

Contents

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Independent Auditor's Report

Audit Committee, Plan Administrator and Participants
Alto Ingredients, Inc. 401(k) Plan

Scope and Nature of the ERISA Section 103(a)(3)(C) Audit

We have performed audits of the financial statements of Alto Ingredients, Inc. 401(k) Plan (the Plan), an employee benefit plan subject to the Employee Retirement Income Security Act of 1974 (ERISA), as permitted by ERISA Section 103(a)(3)(C) (ERISA Section 103(a)(3)(C) audit). The financial statements comprise the statements of net assets available for benefits as of December 31, 2023 and 2022, the related statement of changes in net assets available for benefits for the year ended December 31, 2023, and the related notes to the financial statements.

Management, having determined it is permissible in the circumstances, has elected to have the audits of the Plan's financial statements performed in accordance with ERISA Section 103(a)(3)(C) pursuant to 29 CFR 2520.103-8 of the Department of Labor's (DOL) Rules and Regulations for Reporting and Disclosure under ERISA. As permitted by ERISA Section 103(a)(3)(C), our audits need not extend to any statements or information related to assets held for investment of the Plan (investment information) by a bank or similar institution or insurance carrier that is regulated, supervised, and subject to periodic examination by a state or federal agency, provided that the statements or information regarding assets so held are prepared and certified to by the bank or similar institution or insurance carrier in accordance with 29 CFR 2520.103-5 of the DOL's Rules and Regulations for Reporting and Disclosure under ERISA (qualified institution).

Management has obtained certifications from a qualified institution as of December 31, 2023 and 2022, and for the year ended December 31, 2023, stating that the certified investment information, as described in Note 3 to the financial statements, is complete and accurate.

Opinion

In our opinion, based on our audits and on the procedures performed as described in the Auditor's Responsibilities for the Audit of the Financial Statements section:

- The amounts and disclosures in the accompanying financial statements, other than those agreed to or derived from the certified investment information, are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP).
- The information in the accompanying financial statements related to assets held by and certified to by a qualified institution agrees to, or is derived from, in all material respects, the information prepared and certified by an institution that management determined meets the requirements of ERISA Section 103(a)(3)(C).

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Plan and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our ERISA Section 103(a)(3)(C) audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with U.S. GAAP, and for the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error. Management's election of the ERISA Section 103(a)(3)(C) audit does not affect management's responsibility for the financial statements.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Plan's ability to continue as a going concern within one year after the date that the financial statements are issued or available to be issued.

Management is also responsible for maintaining a current plan instrument, including all plan amendments, administering the Plan and determining that the Plan's transactions that are presented and disclosed in the financial statements are in conformity with the Plan's provisions, including maintaining sufficient records with respect to each of the participants, to determine the benefits due or which may become due to such participants.

Auditor's Responsibilities for the Audit of the Financial Statements

Except as described in the Scope and Nature of the ERISA Section 103(a)(3)(C) Audit section of our report, our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if, there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.

- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Plan's ability to continue as a going concern for a reasonable period of time.

Our audits did not extend to the certified investment information, except for obtaining and reading the certifications, comparing the certified investment information with the related information presented and disclosed in the financial statements, and reading the disclosures relating to the certified investment information to assess whether they are in accordance with the presentation and disclosure requirements of U.S. GAAP.

Accordingly, the objective of an ERISA Section 103(a)(3)(C) audit is not to express an opinion about whether the financial statements as a whole are presented fairly, in all material respects, in accordance with U.S. GAAP.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings and certain internal control-related matters that we identified during the audit.

Other Matter—Supplemental Schedule Required by ERISA

The supplemental schedule, Schedule H, line 4i—schedule of assets (held at end of year) as of December 31, 2023, is presented for purposes of additional analysis and is not a required part of the financial statements but is supplementary information required by the DOL's Rules and Regulations for Reporting and Disclosure under ERISA. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information included in the supplemental schedule, other than that agreed to or derived from the certified investment information, has been subjected to auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with GAAS. For information included in the supplemental schedule that agreed to or is derived from the certified investment information, we compared such information to the related certified investment information.

In forming our opinion on the supplemental schedule, we evaluated whether the supplemental schedule, other than the information agreed to or derived from the certified investment information, including its form and content, is presented in conformity with the DOL's Rules and Regulations for Reporting and Disclosure under ERISA.

In our opinion:

- The form and content of the supplemental schedule, other than the information in the supplemental schedule that agreed to or is derived from the certified investment information, are presented, in all material respects, in conformity with the DOL's Rules and Regulations for Reporting and Disclosure under ERISA.
- The information in the supplemental schedule related to assets held by and certified to by a qualified institution agrees to, or is derived from, in all material respects, the information prepared and certified by an institution that management determined meets the requirements of ERISA Section 103(a)(3)(C).

RSM US LLP

Sioux Falls, South Dakota
October 11, 2024

Alto Ingredients, Inc. 401(k) Plan

**Statements of Net Assets Available for Benefits
December 31, 2023 and 2022**

	2023	2022
Investments at fair value:		
Mutual funds	\$ 61,576,936	\$ 50,394,317
Collective trust fund	6,042,303	5,789,458
Total investments at fair value	67,619,239	56,183,775
Notes receivable from participants	1,876,964	1,508,901
Net assets available for benefits	\$ 69,496,203	\$ 57,692,676

See notes to financial statements.

Alto Ingredients, Inc. 401(k) Plan

**Statement of Changes in Net Assets Available for Benefits
Year Ended December 31, 2023**

Additions:	
Investment income:	
Net appreciation in fair value of investments	\$ 8,595,225
Interest and dividends	1,033,244
Total investment results	<u>9,628,469</u>
Interest income on notes receivable from participants	<u>105,922</u>
Contributions:	
Employer	2,129,672
Participants	3,338,128
Rollovers	420,803
Total contributions	<u>5,888,603</u>
Total additions	<u>15,622,994</u>
Deductions:	
Benefits paid to participants	(3,720,466)
Administrative expenses	(99,001)
Total deductions	<u>(3,819,467)</u>
Net increase in net assets available for benefits	11,803,527
Net assets available for benefits at:	
Beginning of year	<u>57,692,676</u>
End of year	<u><u>\$ 69,496,203</u></u>

See notes to financial statements.

Alto Ingredients, Inc. 401(k) Plan

Notes to Financial Statements

Note 1. Description of the Plan

The following description of Alto Ingredients, Inc. 401(k) Plan (the Plan) provides only general information. Participants should refer to the Plan document for a more complete description of the Plan's provisions.

General and eligibility: The Plan is a defined contribution benefit plan covering substantially all employees of Alto Ingredients, Inc. and Subsidiaries (the Company and Plan Administrator).

To be eligible, employees must be 18 years of age and have completed 120 days of service. Participants enter the Plan on the pay date following attainment of the eligibility requirements. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended (ERISA).

Partial Plan termination: In 2020, the Company idled certain ethanol production facilities and sold its interests in two of its ethanol production facilities, which resulted in a partial Plan termination. Layoffs resulting from these actions affected more than 20% of the participants. All participants affected by the partial Plan termination became fully vested in their accounts. Distributions related to the partial Plan termination were approximately \$317,000 in 2023, \$428,000 in years prior to 2023, while approximately \$865,000 remains payable to affected participants as of December 31, 2023.

Contributions and investment options: Upon becoming eligible to participate, participants are automatically enrolled in the Plan to have 6% deferred from their compensation pretax and contributed to the Plan. Participants may elect to decline participation or elect higher or lower pretax contributions deferred from their compensation. These contributions are subject to Internal Revenue Code (IRC) limitations. Participants who have attained age 50 before the end of the plan year are eligible to make catch-up contributions. Participants may elect to designate all or a portion of deferred compensation as pretax or Roth contributions. The Company provides a discretionary match. For the year ended December 31, 2023, the Company matched 100% of the first 6% of the participants' deferrals. Any further discretionary amounts to be contributed by the Company are determined annually by the Plan's Retirement Plan Committee or the Company's Board of Directors. There were no additional discretionary Company contributions for the year ended December 31, 2023. Participants may also contribute amounts representing distributions from other qualified plans (rollover contributions).

The amounts contributed by the participants and the Company are deposited into one or more of the various investments offered by the Plan, which include a collective trust fund and various mutual funds. Participants may change their investment allocation on a daily basis.

Participant accounts: Individual accounts are maintained for each participant of the Plan. Each participant's account is credited or charged with the participant's contributions and an allocation of the Company's contributions, if any, Plan investment results and expenses that are paid by the Plan. Allocations are based on the participant's eligible compensation, account balance, or specific transactions, as defined. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

Vesting: Participants vest immediately in their contributions including investment earnings or losses. Vesting in the Company's discretionary matching contributions and additional discretionary contributions, if any, including investment earnings or losses, is based on years of completed service. A participant will vest 50% after one year, 75% after two years, and is 100% vested after three years of service. An employee's account will become wholly vested upon Plan termination, attainment of the normal retirement age, total and permanent disability, or death.

Alto Ingredients, Inc. 401(k) Plan

Notes to Financial Statements

Note 1. Description of the Plan (Continued)

Payment of benefits: Upon termination of service, death, total and permanent disability, retirement, hardship (as defined in the Plan) or reaching age 59½, participants may elect to receive either a lump-sum amount equal to the value of his or her account or installment payments. Distribution of benefits upon termination becomes automatic if the participant's account balance is less than \$5,000. Participants with an account balance less than \$5,000, but greater than \$1,000, may have their account balance rolled over to an individual retirement account unless they elect to receive a lump-sum payment. Participants with an account balance less than \$1,000 will receive a lump-sum payment.

Forfeitures: Forfeitures are used to pay Plan administrative expenses or offset employer discretionary matching contributions. During the year ended December 31, 2023, \$33,014 was used from the forfeitures account to pay administrative expenses and \$70,548 was used to offset employer discretionary match contributions. There was \$0 and \$1,080 remaining balances in the forfeiture account as of December 31, 2023 and 2022, respectively.

Notes receivable from participants: Participants are eligible for up to two notes in a 12-month period, and may have two notes outstanding at a time. The minimum amount of any note is \$1,000. The maximum combined note amount is the lesser of \$50,000 or one-half of the participant's vested balance. Notes bear a reasonable interest rate based on prevailing rates and must be repaid within five years, unless the proceeds from the note are used by the participant for the purchase of a principal residence, in which case the maximum is 25 years. Principal and interest are paid ratably through payroll deductions. The existing notes are due at varying times through August 2042. The rate of interest on existing notes at December 31, 2023, ranges from 4.25% to 9.50%.

Note 2. Summary of Significant Accounting Policies

Basis of accounting: The financial statements of the Plan are prepared under the accrual method of accounting.

Use of estimates: The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America (U.S. GAAP) requires management to make estimates and assumptions that affect the reported amounts of net assets available for benefits, and changes therein, and disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

Investment valuation and income recognition: The Plan's investments are reported at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Plan's Investment Committee determines the Plan's valuation policies, utilizing information provided by the Plan's investment advisors and trustee. See Note 4 for a discussion of fair value measurements.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date. Realized gains and losses related to sales of investments are recorded on a trade-date basis, and unrealized gains and losses are recorded based on the fair value as of the end of the reporting period.

Contributions: Contributions from Plan participants and the matching contributions from the employer are recorded in the year in which the employee contributions are withheld from compensation.

Payments of benefits: Benefits are recorded when paid.

Alto Ingredients, Inc. 401(k) Plan

Notes to Financial Statements

Note 2. Summary of Significant Accounting Policies (Continued)

Notes receivable from participants: Notes receivable from participants are measured at their unpaid principal balance plus any accrued but unpaid interest. Delinquent notes are treated as distributions based upon the terms of the Plan document. No allowance for credit losses has been recorded as of December 31, 2023 or 2022.

Notes receivable have been classified as an investment asset for Form 5500 reporting purposes and accordingly, have been included as an investment in the supplemental schedule, Schedule H, line 4i—schedule of assets (held at end of year).

Administrative expenses: Certain administrative functions are performed by officers or employees of the Company. No such officer or employee receives compensation from the Plan. Certain other administrative expenses are paid directly by the Plan.

Risks and uncertainties: The Plan invests in various investment securities. Investment securities are exposed to various risks, such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities have occurred since December 31, 2023, or will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the 2023 statement of net assets available for benefits.

Subsequent events: The Plan Administrator has evaluated subsequent events through October 11, 2024, which is the date the financial statements were available to be issued.

Note 3. Information Certified or Provided by the Plan Trustee

The following is a summary of the Plan's asset information as of December 31, 2023 and 2022, and for the year ended December 31, 2023, included throughout the Plan's financial statements and ERISA-required supplemental schedule, obtained by management and agreed to or derived from information provided by Delaware Charter Guarantee & Trust Company d/b/a Principal Trust Company (Principal Trust Company), the trustee of the Plan. The Plan Administrator has obtained certifications from the trustee that the information provided to the Plan Administrator by the trustee related to the following assets is complete and accurate. Accordingly, as permitted by 29 CFR 2520.103-8 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA, the Plan Administrator instructed the Plan's independent auditor not to perform any auditing procedures with respect to information that appears throughout the financial statements and ERISA-required supplemental schedule related to the following assets:

	2023	2022
Investments at fair value:		
Mutual funds	\$ 61,576,936	\$ 50,394,317
Collective trust fund	6,042,303	5,789,458
Notes receivable from participants	1,876,964	1,508,901
	<u>\$ 69,496,203</u>	<u>\$ 57,692,676</u>

The trustee also certified to the completeness and accuracy of \$8,595,225 of net appreciation in fair value of investments, \$1,033,244 of interest and dividends related to the aforementioned investments and \$105,922 of interest income on the notes receivable from participants for the year ended December 31, 2023.

Alto Ingredients, Inc. 401(k) Plan

Notes to Financial Statements

Note 4. Fair Value Measurements

Accounting standards establish the framework for measuring fair value. That framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy are described as follows:

Level 1: Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Plan has the ability to access.

Level 2: Inputs to the valuation methodology include:

- Quoted prices for similar assets or liabilities in active markets.
- Quoted prices for identical or similar assets or liabilities in inactive markets.
- Inputs other than quoted prices that are observable for the asset or liability.
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specific (contractual) term, the Level 2 input must be observable for substantially the full term of the asset or liability.

Level 3: Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

The asset's or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

The following are descriptions of the valuation methodologies used for investments measured at fair value. There have been no changes in the methodologies used as of December 31, 2023 and 2022.

Mutual funds: Shares of mutual funds are valued at the quoted market price of shares held by the Plan as of year-end.

Collective trust fund: The fund is a stable value fund, and is valued at the net asset value (NAV) as reported by the trustee, based on audited financial statements of the fund at year-end. The NAV is used as a practical expedient to estimate fair value.

The methods described above may produce fair values that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

Alto Ingredients, Inc. 401(k) Plan

Notes to Financial Statements

Note 4. Fair Value Measurements (Continued)

The following tables set forth by level, within the fair value hierarchy, the Plan's investments at fair value as of December 31, 2023 and 2022:

Description	Investments at Fair Value as of December 31, 2023			
	Level 1	Level 2	Level 3	Total
Mutual funds	\$ 61,576,936	\$ -	\$ -	\$ 61,576,936
Total assets in the fair value hierarchy	\$ 61,576,936	\$ -	\$ -	61,576,936
Investments measured at net asset value (a)				6,042,303
Total assets at fair value				\$ 67,619,239

Description	Investments at Fair Value as of December 31, 2022			
	Level 1	Level 2	Level 3	Total
Mutual funds	\$ 50,394,317	\$ -	\$ -	\$ 50,394,317
Total assets in the fair value hierarchy	\$ 50,394,317	\$ -	\$ -	50,394,317
Investments measured at net asset value (a)				5,789,458
Total assets at fair value				\$ 56,183,775

(a) In accordance with Subtopic 820-10, certain investments that were measured at NAV per share (or its equivalent) have not been classified in the fair value hierarchy. The fair value amounts presented in these tables are intended to permit reconciliation of the fair value hierarchy to the line items presented in the statement of net asset available for benefits.

Net asset value: The Plan follows guidance on how entities should estimate fair value of certain alternative investments. The fair value of investments within the scope of the guidance can be determined using NAV per share as a practical expedient, when fair value is not readily determinable, unless it is probable the investment will be sold at something other than NAV. The following table includes categories of investments where NAV is available as a practical expedient. There were no unfunded commitments for the investment below as of December 31, 2023 or 2022:

Investment	Fair Value as of		Redemption Frequency	Redemption Notice Period
	December 31 2023	December 31 2022		
Collective trust fund	\$ 6,042,303	\$ 5,789,458	Daily	None

Note 5. Plan Termination

Although it has not expressed any intent to do so, the Company has the right under the Plan to discontinue its contributions at any time and to terminate the Plan subject to the provisions of ERISA. In the event of Plan termination, participants will become 100% vested in their accounts.

Alto Ingredients, Inc. 401(k) Plan

Notes to Financial Statements

Note 6. Tax Status

The Plan adopted a Principal Life Insurance Company pre-approved plan effective March, 15, 2022. The pre-approved plan's latest Internal Revenue Service (IRS) determination letter, dated June 30, 2020, stated that the pre-approved plan, as then designed, was in compliance with the applicable requirements of the IRC. The pre-approved plan opinion letter has been relied upon by the Plan. The Plan Administrator believes that the Plan is currently being operated in compliance with the applicable provisions of the IRC.

U.S. GAAP requires the Plan's management to evaluate tax positions taken by the Plan and recognize a tax liability (or asset) if the Plan has taken an uncertain position that more likely than not would not be sustained upon IRS determination. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress.

Note 7. Related-Party and Party-in-Interest Transactions

Certain Plan investments are shares of mutual funds and a collective trust fund managed by affiliates of Principal Trust Company, the trustee as defined by the Plan; therefore, these transactions qualify as party-in-interest transactions.

Note 8. Reconciliation of Financial Statements to Form 5500

The following is a reconciliation of net assets available for benefits as of December 31, 2023 and 2022, per the financial statements to the Form 5500:

	2023	2022
Net assets available for benefits per the financial statements	\$ 69,496,203	\$ 57,692,676
Adjustment for deemed distributions pending loan offset	(16,065)	(16,065)
Net assets available for benefits per Form 5500	<u>\$ 69,480,138</u>	<u>\$ 57,676,611</u>

The following is a reconciliation of the notes receivable from participants per the financial statements as of December 31, 2023, to the Form 5500:

Notes receivable from participants balances per the financial statements	\$ 1,876,964
Adjustment for deemed distributions pending loan offset	(16,065)
Notes receivable from participants balances per the Form 5500	<u>\$ 1,860,899</u>

Alto Ingredients, Inc. 401(k) Plan

Schedule H, Line 4i—Schedule of Assets (Held at End of Year) December 31, 2023

Employer Identification Number: 41-2170618

Plan Number: 002

Identity of Issue, Borrower, Lessor or Similar Party	Description of Investment	Current Value
Collective trust fund:		
Principal Global Investors Trust Company*	Principal Stable Value Fund	\$ 6,042,303
Mutual funds:		
Vanguard Group	Vanguard 500 Index Admiral Fund	9,850,845
American Funds Service Company	American Funds 2040 Target Date Fund	4,950,005
American Funds Service Company	American Funds 2030 Target Date Fund	4,442,705
T. Rowe Price Funds	T Rowe Price New Horizon Fund	4,415,961
MFS Fund Distributors	MFS Growth Fund	4,060,475
Vanguard Group	Vanguard Small-Cap Index Admiral Fund	3,686,874
T. Rowe Price Funds	T Rowe Price Capital Appreciation Fund	3,621,065
American Funds Service Company	American Funds 2035 Target Date Fund	3,477,045
American Funds Service Company	American Funds Europacific Growth Fund	3,138,053
American Century Investments	American Century Mid Cap Value Institutional Fund	2,444,823
Putnam Investments	Putnam Large Cap Value Fund	2,157,314
Metropolitan Life Insurance Company	Metropolitan West Total Return Bond Fund	2,145,928
American Funds Service Company	American Funds 2050 Target Date Fund	2,076,182
Principal Financial Services*	Principal Real Estate Securities Institutional Fund	1,993,869
American Funds Service Company	American Funds 2025 Target Date Fund	1,893,981
Vanguard Group	Vanguard Mid-Cap Index Admiral Fund	1,497,246
American Funds Service Company	American Funds 2020 Target Date Fund	1,475,525
American Funds Service Company	American Funds 2045 Target Date Fund	1,444,916
American Funds Service Company	American Funds 2055 Target Date Fund	803,248
Alliance Bernstein	AB Global Bond Fund	553,195
Victory Capital	Victory Sycamore Small Company Opportunity Fund	423,415
Vanguard Group	Vanguard Emerging Markets Stock Index Fund	418,712
American Funds Service Company	American Funds 2060 Target Date Fund	287,531
American Funds Service Company	American Funds 2010 Target Date Fund	245,371
American Funds Service Company	American Funds 2015 Target Date Fund	66,626
American Funds Service Company	American Funds 2065 Target Date Fund	6,026
Participant loans:		
Participants*	Interest rates ranging from 4.25% to 9.50%, maturing through August 2042	1,860,899
		<u>\$ 69,480,138</u>

*A party-in-interest to the Plan as defined by ERISA

The above information has been certified or provided by Delaware Charter Guarantee & Trust Company d/b/a Principal Trust Company, the trustee, as complete and accurate. Principal Trust Company is a party-in-interest.

SCHEDULE H, line 4i - SCHEDULE OF ASSETS (HELD AT END OF YEAR)

SCHEDULE H, line 4i - SCHEDULE OF ASSETS (HELD AT END OF YEAR)

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EIN 41 2170618
 PLAN NUMBER 002
 PLAN YEAR 01/01/2023 TO 12/31/2023

(A)	(B) Identity of issuer, borrower, lessor or similar party.	(C) Description of investment including maturity date, rate of interest, collateral, par or maturity value.	(D) Cost	(E) Current Value
	American Funds Service Company	Registered Investment Company Am Fds EuroPacific Grth R5 Fd	\$ 0.00	\$ 3,138,053.42
	American Funds Service Company	Registered Investment Company Am Fds Trgt Dte Rtm 2010 R6 Fd	\$ 0.00	\$ 245,370.64
	American Funds Service Company	Registered Investment Company Am Fds Trgt Dte Rtm 2015 R6 Fd	\$ 0.00	\$ 66,626.50
	American Funds Service Company	Registered Investment Company Am Fds Trgt Dte Rtm 2020 R6 Fd	\$ 0.00	\$ 1,475,524.55
	American Funds Service Company	Registered Investment Company Am Fds Trgt Dte Rtm 2025 R6 Fd	\$ 0.00	\$ 1,893,980.72
	American Funds Service Company	Registered Investment Company Am Fds Trgt Dte Rtm 2030 R6 Fd	\$ 0.00	\$ 4,442,704.92
	American Funds Service Company	Registered Investment Company Am Fds Trgt Dte Rtm 2035 R6 Fd	\$ 0.00	\$ 3,477,044.51
	American Funds Service Company	Registered Investment Company Am Fds Trgt Dte Rtm 2040 R6 Fd	\$ 0.00	\$ 4,950,004.92
	American Funds Service Company	Registered Investment Company Am Fds Trgt Dte Rtm 2045 R6 Fd	\$ 0.00	\$ 1,444,915.66
	American Funds Service Company	Registered Investment Company Am Fds Trgt Dte Rtm 2050 R6 Fd	\$ 0.00	\$ 2,076,182.07
	American Funds Service Company	Registered Investment Company Am Fds Trgt Dte Rtm 2055 R6 Fd	\$ 0.00	\$ 803,247.72
	American Funds Service Company	Registered Investment Company Am Fds Trgt Dte Rtm 2060 R6 Fd	\$ 0.00	\$ 287,530.92
	American Funds Service Company	Registered Investment Company Am Fds Trgt Dte Rtm 2065 R6 Fd	\$ 0.00	\$ 6,026.79
	American Century Investments	Amer Cent Mdcv Val I Fund	\$ 0.00	\$ 2,444,822.72
	Alliance Bernstein	Registered Investment Company AB Global Bond Z Fund	\$ 0.00	\$ 553,194.56

SCHEDULE H, line 4i - SCHEDULE OF ASSETS (HELD AT END OF YEAR)

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EIN 41 2170618
 PLAN NUMBER 002
 PLAN YEAR 01/01/2023 TO 12/31/2023

(A)	(B) Identity of issuer, borrower, lessor or similar party.	(C) Description of investment including maturity date, rate of interest, collateral, par or maturity value.	(D) Cost	(E) Current Value
	Metropolitan Life Insurance Co	Registered Investment Company Metro West Ttl Rtn Bd I Fund	\$ 0.00	\$ 2,145,928.19
	MFS Investment Management	Registered Investment Company MFS Growth R6 Fund	\$ 0.00	\$ 4,060,475.32
*	Principal Funds Inc	Registered Investment Company Prin Real Estate Secs Inst Fd	\$ 0.00	\$ 1,993,869.30
*	Principal Global Investors Trust Co	Common/Collective Trust Principal Stable Value Z Fund	\$ 0.00	\$ 6,042,303.00
	Putnam Investments	Registered Investment Company Putnam Large Cap Value R6 Fund	\$ 0.00	\$ 2,157,314.00
	T. Rowe Price Funds	Registered Investment Company T Rowe Price Cap Appr Fund	\$ 0.00	\$ 3,621,065.38
	T. Rowe Price Funds	Registered Investment Company T. Rowe Price New Horizon Fd	\$ 0.00	\$ 4,415,961.28
	Vanguard Group	Registered Investment Company Vanguard Eng Mk Stk Idx Adm Fd	\$ 0.00	\$ 418,711.58
	Vanguard Group	Registered Investment Company Vanguard Mid Cap Index Adm Fd	\$ 0.00	\$ 1,497,246.01
	Vanguard Group	Registered Investment Company Vanguard Sm Cap Index Adm Fund	\$ 0.00	\$ 3,686,874.36
	Vanguard Group	Registered Investment Company Vanguard 500 Index Admiral Fd	\$ 0.00	\$ 9,850,845.37
	Victory Funds	Registered Investment Company Victory Syca Sm Co Opp R6 Fund	\$ 0.00	\$ 423,414.66
*	Participant Loans	Range of Interest Rates Rates Range From 4.25% To 9.50%	\$ 0.00	\$ 1,860,899.00