CODEX ALIMENTARIUS COMMISSION

Food and Agriculture Organization of the United Nations

World Health Organization

Viale delle Terme di Caracalla, 00153 Rome, Italy - Tel: (+39) 06 57051 - E-mail: codex@fao.org - www.codexalimentarius.org

Agenda Item 9 **CRD29**

Original language only

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON FOOD ADDITIVES

Fifty-third Session

DISCUSSION PAPER ON THE FOOD ADDITIVE PROVISION FOR THE USE OF TRISODIUM CITRATE IN FC 01.1.1 "FLUID MILK (PLAIN)"

(Comments of Burundi, Ecuador, Egypt, El Salvador, Ghana, Indonesia, Kenya, Morocco, Russian Federation, Senegal and South Africa)

Burundi

Discussion paper on the food additive provision for the use of trisodium citrate in FC 01.1.1 "Fluid milk (plain)"; Note B25 For use in UHT milk from bovine species to compensate for citrate or calcium content to prevent sedimentation as a result of climatic conditions only;CX/FA 23/53/16

Comment: Burundi objects the use of trisodium citrate use in UHT milk from bovine species.

Justification:

1) The issue of sediment formation as a result of aggregation of K casein type of protein caused by structural changes due to high processing temperature is common in reconstituted UHT fluid milk and yet most of our processors are packing fresh UHT milk hence it is not of big concern to our industry as of now.

2) Sedimentation during storage can be reversed upon mixing by resuspending protein layer.

3) Most of the problems of sedimentation and gelation occur due to use of poor-quality raw milk whose PH is above 6.65 and processing raw milk with low Heat coagulation temperature. Majority of our processors if not all currently process UHT milk from resazurin 6 which is the highest grade for it to withstand heat stability.

4) Sedimentation occurs during prolonged storage of UHT plain milk beyond six months and violation of storage conditions especially storage of UHT milk above 30 degrees for a long time. Most of Ugandan fluid milk has shelf life ranging between 3 months to 6months and with adherence to storage conditions and appropriate UHT processing conditions and recommended packaging material, sedimentation is not a likely problem neither has it been identified during routine testing to necessitate use of trisodium citrate in stabilization of fluid milk during storage. Whereas it's use is technologically acceptable, it's likely misuse by industry players if allowed can cause more food safety issues as opposed to sensory alteration of milk that has undergone sedimentation.

Examining the potential of Trisodium Citrate (TSC) to alter or mask quality of raw fluid milk and UHT pasteurized milk

i. Data from the Ugandan industries on our disposition, shows UHT milk sedimentation is not a problem. Additionally, the raw milk used for UHT has resazurin 6, grade 1 which has not shown any sedimentation even over long term storage.

ii. Trisodium citrate increases the ethanol stability of milk. Thus, a much higher concentration of ethanol is needed to get milk curdling in the alcohol test. Thus poor quality milk, to which trisodium citrate is added, can pass the ethanol test therefore, masking the bad quality.

iii. Due to its strong buffering capacity, trisodium citrate will facilitate unscrupulous milk dealers to mask poor quality in milk thus passing off low pH/low heat stability milk as good quality milk.

iv. Both low and high ionic calcium can cause sedimentation. Thus, use of trisodium citrate is not necessarily a full proof solution to milk sedimentation.

v. The issue of UHT milk sedimentation can be addressed by adjusting to an appropriate UHT heating regime without addition of any additive.

vi. Trisodium citrate can be used as part of the cattle feeding/nutrition program as a prophylactic to help stem mastitis, which often substantially contributes to UHT milk sedimentation.

vii. Trisodium citrate is regarded as GRAS. However, it may be misused by unscrupulous industrial players thus compromising milk quality. Toxicological reports indicate no safety issues is with the food additive, but quality issues are of concern.

viii. Current harmonized East African Community standards for raw milk and UHT pasteurized milk do not allow addition of any food additives in milk. These are regional standards adopted by all Partner States in East African Community.

ix. Key argument: TSC affects rheology of fluid milk – could interfere with results of routine platform tests conducted for raw fluid milk in Uganda and many other LMICs thus masking possible poor quality of milk.

Ecuador

1. Comentarios generales

Ecuador agradece la oportunidad de comentar los documentos: CL 2021/55-FA y CL 2021/92/OCS-FA, y expresamos lo siguiente:

2. Comentarios específicos

Sobre el documento CL 2021/55-FA, no tenemos observaciones ni comentarios

Sobre el documento CL 2021/92/OCS-FA, como Ecuador estamos de acuerdo con el uso de Citrato Trisódico en la leche líquida (natural/simple) en la Categoría de Alimentos 01.1.1. Este es un aditivo se utilizaría como estabilizante de la proteína en la leche, en procesos industriales para la obtención de leche UHT por ejemplo. Actualmente se usan otros tipos de aditivos para este fin ya que, en nuestra región, las calidades de las leches que son utilizadas para los procesos industriales no son las más optimas y se tiene problemas de acidez, lo cual conlleva a que se pueda tener problemas post percha. La ventaja del citrato trisódico frente a los demás aditivos es que, al ser un ácido orgánico y por sus bajos niveles de toxicidad, no causaría problemas en la salud del ser humano. Por lo antes mencionado, como país estamos de acuerdo con el uso del citrato trisódico como estabilizador o emulsionante para uso industrial (leches esterilizadas o UHT), pero siempre debe constar en su rotulado.

Egypt

Egypt would like to thank the chair and the members of the EWG for the good work undertaken in developing this discussion paper.

Egypt does not accept the use of TSC in Milk and Milk products except goat's milk only , but Egypt understands that there is a technological justification for the use of this substance with some products, and also Egypt acknowledges that the safety assessment conducted by JECFA leading to a result of "no ADI set". Egypt therefore does not object to having this substance move in the Codex step process, while maintaining our right to not accept products treated with this substance.

El Salvador

El Salvador agradece el documento remitido por la Secretaría del Codex Alimentarius, que ha sido preparado por Brasil y agradece el seguimiento del CCFA al tema en cuestión.

El Comité Espejo Nacional sobre Aditivos Alimentarios ha analizado el Documento de debate sobre la disposición relativa a los aditivos alimentarios para el uso de citrato trisódico en la categoría de alimentos 01.1.1 “Leche líquida (natural/simple), CX/FA 23/53/16 y presenta comentarios a continuación:

El Salvador agradece la consideración de las observaciones remitidas como respuesta a la CL 2021/92/OCS-FA, donde se indicó que:

El Salvador estaría de acuerdo de aprobar el uso del SIN 331 (iii) en leche UHT, solamente si se cumplen las dos condiciones siguientes:

1. El valor natural crítico por debajo o a partir del cual se podría necesitar el uso de citrato trisódico es establecido como parte del texto de la nota.
2. Se establecen específicamente las condiciones climáticas que han afectado a la leche y bajo las cuales, se permitiría el uso del aditivo.

Habiéndose tomado en cuenta la solicitud de El Salvador, se desea manifestar apoyo por el uso del SIN 331 (iii) en la categoría de alimentos 01.1.1, para lo cual se desea solicitar la siguiente enmienda a la redacción de la nota YY que figura en el documento CX/FA 23/53/16, con motivo favorecer su comprensión y

aplicación de acuerdo con el sentido de la disposición de uso para el SIN 331(iii) en dicha categoría de alimentos.

Propuesta de actualización nota YY:

Se propone eliminar el texto tachado e incorporar el texto subrayado y en negrita.

Para ~~Excluidas~~ las leches de especies bovinas, ~~en las que~~ **únicamente puede utilizarse** el citrato trisódico (SIN 331(iii)) ~~solo puede utilizarse~~ como estabilizador ~~a~~ **hasta** 1 000 mg/kg, expresado como ácido cítrico, para compensar el bajo contenido de citrato intrínseco en leche cruda.

Ghana

Position: Ghana is opposed to the use of trisodium citrate in this food category 01.1.1 (Plain liquid milk).

Rationale: The Preamble of the GSFA provides that, the use of food additives is justified only when it provides a benefit, does not pose an appreciable risk to the health of consumers, does not mislead the consumer, and fulfils one or more of the technological functions defined by Codex .

UHT treatment has been used for inactivating micro-organisms and extending the shelf life of milk. UHT products have remained stable over this period without the need for additives. The basis for justifying the use of this additive has not been documented. The preamble of the GSFA gives guidelines on the use of additives for only when they are extremely necessary to achieve a certain purpose. In this current situation, there is no justification for the use of trisodium citrate in this food category.

Furthermore, the proposal is inconsistent with the definition of milks in Codex STAN CXS 206- 1999 (General Standard for the Use of Dairy Terms).

Indonesia

Indonesia supports the use of trisodium citrate (INS.331(iii)) in food category 01.1.1 Fluid milk (plain) with maximum level at GMP as emulsifier or stabilizer.

Kenya

Discussion paper on the food additive provision for the use of trisodium citrate in FC 01.1.1 “Fluid milk (plain)”; Note B25 For use in UHT milk from bovine species to compensate for citrate or calcium content to prevent sedimentation as a result of climatic conditions only; CX/FA 23/53/16

Comment: Kenya objects the use of trisodium citrate use in UHT milk from bovine species.

Justification: There is no technological justification for its use in milk from bovine species.

Morocco

- Disposition pour le citrate trisodique SIN 331 dans le lait liquide (nature) :

Le Maroc s’oppose à l'utilisation du citrate trisodique dans cette catégorie d'aliments 01.1.1 (Lait liquide nature).

Argumentaire :

Conformément à la section 3.2 du préambule de la NGAA, l'utilisation d'additifs alimentaires n'est justifiée que lorsqu'elle présente un avantage, qu'elle ne présente pas de risque appréciable pour la santé des consommateurs, qu'elle n'induit pas le consommateur en erreur et qu'elle remplit une ou plusieurs des fonctions technologiques définies par le Codex et répond aux besoins énoncés de (a) à (d), et uniquement lorsque ces objectifs ne peuvent être atteints par d'autres moyens économiquement et technologiquement réalisables.

Le traitement UHT du lait existe depuis longtemps comme moyen d'inactiver les micro-organismes et de prolonger la durée de conservation du lait. Les produits UHT sont restés stables pendant cette période sans qu'il soit nécessaire d'utiliser des additifs. Le problème de sédimentation qui est utilisé comme base pour justifier l'utilisation de cet additif n'a pas été rapporté. En conséquence et sur la base des directives du préambule de la NGAA sur l'utilisation d'additifs uniquement lorsqu'ils sont extrêmement nécessaires pour atteindre un certain objectif, il n'y a aucune justification pour l'utilisation du citrate trisodique dans FC 01.1.1. De plus, la proposition est incompatible avec la définition des laits dans la norme Codex STAN CXS 206-1999 (Norme générale pour l'utilisation des termes de laiterie) qui sont incluses sous FC 01.1.1.

Le Maroc exprime sa préoccupation concernant l’utilisation du citrate trisodique pour masquer une qualité inférieure du lait de bovin et demande des informations sur les conditions spécifiques dans lesquelles cet additif peut être utilisé.

Russian Federation

The Russian Federation calls on the CCFA to discontinue consideration of proposals for the use of trisodium citrate in fluid milk, including sterilized one, because trisodium citrate may be used to conceal poor-quality milk, and thus mislead consumers about its consumer properties. The use of this food additive may have a negative impact on the quality of ready-to-eat products. We consider it possible to use trisodium citrate in UHT milk only.

Senegal

Contexte : Au cours du CCFA52 (2021), différents points de vue ont été exprimés sur la disposition. Certains membres opposés à l'adoption du projet de disposition ont estimé que la justification technologique de l'utilisation du citrate trisodique (SIN 331(iii)) faisait défaut. Ces membres étaient d'avis que cette substance pourrait masquer la mauvaise qualité du produit et induire les consommateurs en erreur. D'autre part, d'autres membres ont soutenu l'adoption et ont témoigné que la justification technologique était justifiée, et que l'ajout de citrate au lait de consommation ne changerait pas la nature du produit étant donné que le citrate est naturellement présent dans le lait.

Position : Le Sénégal s'oppose à l'utilisation du citrate trisodique dans la catégorie d'aliments 01.1.1 (Lait liquide nature).

Justification : L'utilisation de cet additif dans cette catégorie d'aliments n'est pas technologiquement justifiée et peut conduire à tromper le consommateur.

South Africa

South Africa does not support the use of trisodium citrate, INS 331(iii) in UHT and sterilised milk from bovine species.

Rationale: The use of trisodium citrate is not considered an essential additive in GSFA for fluid milk other than goat milk. Alternatives such as phosphates do exist that are adequate for use in combination with good agricultural practices. The use of this additive in milk may also be used to mask the results of poor milk handling practices.

The use of trisodium citrate in UHT and sterilised milk from bovine species is not consistent with the requirements for use of food additives as set out in section 3.2 in the preamble of the GSFA.