INITIAL ENVIRONMENTAL EXAMINATION

PROJECT/ACTIVITY DATA

<table>
<thead>
<tr>
<th>Project/Activity Name:</th>
<th>USAID/Haiti Salt Iodization Support Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographic Location(s) (Country/Region):</td>
<td>Haiti-LAC</td>
</tr>
<tr>
<td>Amendment (Yes/No), if Yes indicate # (1, 2...):</td>
<td>No</td>
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<td>Solicitation/Contract/Award Number(s):</td>
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<tr>
<td>Implementing Partner(s):</td>
<td>Congregation Sainte Croix, GoH</td>
</tr>
<tr>
<td>Bureau Tracking ID:</td>
<td>LAC-IEE-19-28</td>
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<tr>
<td>Tracking ID of Related RCE/IEE (if any):</td>
<td>LAC-IEE-16-14, LAC-IEE-16-43</td>
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<td>Tracking ID of Other, Related Analyses:</td>
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ORGANIZATIONAL/ADMINISTRATIVE DATA

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<tr>
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<td>If Amended, specify funding amount:</td>
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<td>If Amended, specify new funding total:</td>
<td></td>
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<tr>
<td>Prepared by:</td>
<td>Debra Allen-Reid, U.S. Forest Service/METI Contractor</td>
</tr>
<tr>
<td>Date Prepared:</td>
<td>04/30/2019</td>
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ENVIRONMENTAL COMPLIANCE REVIEW DATA

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<td>Positive</td>
<td></td>
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<td></td>
<td>Deferred (per 22 CFR 216.3(a)(7)(iv))</td>
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<tr>
<td>IEE Expiration Date (if applicable):</td>
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<tr>
<td>Additional Analyses/Reporting Required:</td>
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<td>Low X # 2 Moderate # High #</td>
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<tr>
<td>Climate Risks Addressed (#): 0</td>
<td>Low _ # _ Moderate ____ High ____</td>
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</tbody>
</table>
THRESHOLD DETERMINATION AND SUMMARY OF FINDINGS

PROJECT/ACTIVITY SUMMARY

The objective of the Salt Iodization Support Activity (SISA) is to eliminate iodine deficiency disease (IDD) in Haiti in cooperation with the USAID-RANFOSE initiative, by July 2022, as measured by UNICEF biomarker surveys at program inception and closure. SISA will conduct a value chain analysis of the salt industry in Haiti and support the processing and the distribution of 750 tons of fortified salt per month.

ENVIRONMENTAL DETERMINATIONS

Upon approval of this document, the determinations become affirmed, per Agency regulations (22 CFR 216).

**TABLE 1: ENVIRONMENTAL DETERMINATIONS**

<table>
<thead>
<tr>
<th>Projects/Activities</th>
<th>Categorical Exclusion Citation (if applicable)</th>
<th>Negative Determination</th>
<th>Positive Determination</th>
<th>Deferral</th>
</tr>
</thead>
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<tr>
<td>Project/Activity 1: Expand and update 2012 USAID Haitian Salt Value-chain Analysis</td>
<td>X</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Project/Activity 2: Processing of Iodized Salt</td>
<td>X</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Sub-activity 2.1: Distribution of Iodized Salt</td>
<td>X</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
</tbody>
</table>

CLIMATE RISK MANAGEMENT

A climate risk screening was conducted; it is summarized in Section 4.2 and the table appears as Annex A.

BEO SPECIFIED CONDITIONS OF APPROVAL

NA

IMPLEMENTATION

In accordance with 22 CFR 216 and Agency policy, the conditions and requirements of this document become mandatory upon approval. This includes the relevant limitations, conditions and requirements in this document as stated in Sections 3, 4, and 5 of the IEE and any BEO Specified Conditions of Approval.

---

1 Positive Determinations require preparation of a Scoping Statement and Environmental Assessment.
2 Deferrals must be cleared through an Amendment to this IEE prior to implementation of any deferred activities.
USAID APPROVAL OF INITIAL ENVIRONMENTAL EXAMINATION

PROJECT/ACTIVITY NAME: USAID/Haiti Salt Iodization Support Activity

Bureau Tracking ID: LAC-IEE-19-26

Approval: [Signature]
Gary Juste, Acting Mission Director
5/29/2019

Clearance: [Signature]
Reginald Toussaint, A/COE
5/23/2019

Clearance: [Signature]
Abdel Abellard, Mission Environmental Officer
5/23/2019

Clearance: [Signature]
Diara Shannon, Acting Regional Environmental Advisor
5/17/2019

Clearance: [Signature]
Karen D’Aboville, Regional Legal Officer
5/23/2019

By E-mail
Alexious Butler
5/24/2019

Concurrence: [Signature]
Diana Shannon, Bureau Environmental Officer
6/3/2019
INITIAL ENVIRONMENTAL EXAMINATION

CONTENTS

1.0 PROJECT/ACTIVITY DESCRIPTION ................................................................................... 5
  1.1 PURPOSE OF the IEE 5
  1.2 PROJECT/ACTIVITY OVERVIEW 5
  1.3 PROJECT/ACTIVITY DESCRIPTION 6

2.0 BASELINE ENVIRONMENTAL INFORMATION .................................................................. 7
  2.1 LOCATIONS AFFECTED AND ENVIRONMENTAL CONTEXT (ENVIRONMENT, PHYSICAL, CLIMATE, SOCIAL, Threatened and ENDANGERED species) 7
  2.2 APPLICABLE AND APPROPRIATE PARTNER COUNTRY AND OTHER INTERNATIONAL STANDARDS (E.G. WHO), ENVIRONMENTAL AND SOCIAL LAWS, POLICIES, AND REGULATIONS 8
  2.3 COUNTRY/MINISTRY/MUNICIPALITY ENVIRONMENTAL CAPACITY ANALYSIS (AS APPROPRIATE) 8

3.0 ANALYSIS OF POTENTIAL ENVIRONMENTAL RISK ........................................................ 8

4.0 ENVIRONMENTAL DETERMINATIONS .............................................................................. 8
  4.1 RECOMMENDED ENVIRONMENTAL DETERMINATIONS 9
  4.2 CLIMATE RISK MANAGEMENT 10

5.0 CONDITIONS AND MITIGATION MEASURES .................................................................. 11
  5.1 CONDITIONS 11
  5.2 AGENCY CONDITIONS 12
  5.3 MITIGATION MEASURES 13

6.0 LIMITATIONS OF THIS INITIAL ENVIRONMENTAL EXAMINATION ........................... 14

7.0 REVISIONS .................................................................................................................... 15

ATTACHMENTS: ..................................................................................................................... 16
1.0 PROJECT/ACTIVITY DESCRIPTION

1.1 PURPOSE OF THE IEE

The purpose of this document, in accordance with Title 22, Code of Federal Regulations, Part 216 (22 CFR 216), is to provide a preliminary review of the reasonably foreseeable effects on the environment of the USAID intervention described herein and recommend determinations and, as appropriate, conditions, for these activities. Upon approval, these determinations become affirmed, and specified conditions become mandatory obligations of implementation. This IEE also documents the results of the Climate Risk Management process in accordance with USAID policy (specifically, ADS 201mal).

This IEE is a critical element of USAID’s mandatory environmental review and compliance process meant to achieve environmentally sound design and implementation. Potential environmental impacts should be addressed through formal environmental mitigation and monitoring plans (EMMPs) and/or Environmental Assessments (EAs), if needed.

The USAID mission in Haiti received an unsolicited application from Congregation Saint Croix in April 2018 to support salt iodization at the Bon Sel salt processing facility in Port-au-Prince. The application proposed that USAID support iodization and distribution of iodized salt to commercial facilities as well as a salt value chain assessment. The application was reviewed by a technical review team and found to be technically sound and aligned with Mission nutrition goals. Additionally, the application proposed interventions with directly support the efforts of the USAID RANFOSE food fortification activity.

Under this IEE, Activity 1 is to expand and update a USAID value-chain study of Haitian salt completed in 2012. This analysis will address current production and supply-chain issues required for Haitian salt to be regionally competitive.

Activity 2 under this IEE is iodization of salt, with a sub-activity of distributing the iodized salt.

This Salt Iodization Activity (SISA) directly supports and contributes to the Government of Haiti (GOH)-led efforts to improve the nutrition, health, and food security of the populace. These efforts are articulated in the Government of Haiti’s Nutrition Strategic Plan 2013-2018 (Plan Stratégique Nutrition MSPP 2013-2018).

Previous IEEs related to this activity include LAC-IEE-16-14, the IEE for Pillar C – Priority 1: Health, and it’s first amendment, LAC-IEE-16-43. The relevant objectives of the amendment include increasing the availability and accessibility of properly and locally sourced fortified, staple foods across the country.

1.2 PROJECT/ACTIVITY OVERVIEW

SISA is aligned with the relevant nutrition strategies of the Haiti and US governments. The overarching goal of the Government of Haiti’s Nutrition Strategic Plan (Plan Stratégique Nutrition MSPP 2013-2018) is the prevention of malnutrition. The strategic plan also includes specific objectives related to micronutrients, food fortification and quality controls and assurance:
SISA supports Haiti’s strategic plan by focusing on the development and implementation of a sustainable salt iodization facility in the country. It is also aligned with the Feed the Future goals, which includes food fortification as one of the approaches to pursue to reach its nutrition objectives. SISA will also fulfill “Tiger Team Memo” recommendations, which specifies using a local partner to support nutrition programming as well as coordination among USAID nutrition activities. Interventions planned under this activity are designed to directly support the Development Objective 2 sub-Intermedia Result “2.2.2 Consumption of nutritious and safe diets increased.”

1.3 PROJECT/ACTIVITY DESCRIPTION

The program objective is to eliminate Iodine Deficiency Disease (IDD) in Haiti, in cooperation with the USAID-RANFOSE initiative, by July 2022, as measured by UNICEF biomarker surveys at program inception and closure.

The program assumes collaboration with RANFOSE regarding the salt component of the RANFOSE initiative. Such collaboration would complement the activities and tasks outlined in this RFA.

This activity would support the RANFOSE initiative in four general areas: Technical Support, Marketing & Education, Value Chain Analysis, and Salt Processing. The first two areas would be the focus of collaborative efforts with RANFOSE. The latter two areas, Value Chain Analysis and Salt Processing, are the focus of this activity. The following provides an overview of the approach, activities and tasks to be undertaken in achieving the program objective:

Approach:

This fortified salt program is designed in alignment with the USAID/IGN/UNICEF Technical Interagency report of September 2016. The Interagency report posits that IDD can be prevented in Haiti through expanded distribution of fortified salt in the foodservice and food-processing market segments. That is to say, Universal Salt Iodization, while a commendable goal, is not required to achieve the objective of IDD prevention.

As such, the program approach is to materially boost production of 25-kg sacks of iodine fortified salt and achieve national distribution in foodservice and food-processing segments. Practically speaking, that translates into doubling current output of 25-kg sacks of iodine fortified salt and targeting schools, orphanages, maternal care-centers, and bakeries throughout Haiti. Further, the salt being processed and fortified ideally would be Haitian solar salt, to the extent the value-chain makes that possible and/or can be incented to do so.

The primary activity would be to update and expand the USAID “HIFIVE” study of Haitian salt completed in 2012. That would address current production and supply-chain issues required for Haitian salt to be regionally competitive, i.e., produce food grade raw solar-salt and reduce salt imports. In addition, it would address the distribution challenges involved in reaching all food-grade segments throughout Haiti.
The production and supply-chain analysis would involve extensive collaboration with our current Haitian salt suppliers and stakeholders such as PANSEH. The distribution analysis would involve collaboration with the current distributor network and stakeholders such as Cargill Salt.

### TABLE 2: DEFINED OR ILLUSTRATIVE PROJECTS/ACTIVITIES AND SUB-ACTIVITIES

<table>
<thead>
<tr>
<th>Project/Activity 1</th>
<th>Expand and update 2012 USAID Salt Value-chain Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project /Activity 2</td>
<td>Processing of Iodized Salt</td>
</tr>
<tr>
<td>Sub-activity 2.1</td>
<td>Distribution of Iodized Salt</td>
</tr>
</tbody>
</table>

Does project/activity involve construction\(^3\) as defined by ADS 201 and 303?  No X

**2.0 BASELINE ENVIRONMENTAL INFORMATION**

**2.1 LOCATIONS AFFECTED AND ENVIRONMENTAL CONTEXT (ENVIRONMENT, PHYSICAL, CLIMATE, SOCIAL, THREATENED AND ENDANGERED SPECIES)**

The value-chain analysis activity addressed in this IEE will have no environmental affects and thus will not receive further treatment in this document.

The goal of this project is to make iodized salt available for human consumption throughout the country. No threatened or endangered species will be affected. Interventions that will be implemented are limited to processing (washing, sizing, fortification, packaging) of purchased raw salt. The activity will not operate solar ponds. Salt will be purchased from producers who operate ponds in or near Anse Rouge. In addition, salt will also be purchased from Cargill's salt facility in Bonaire as raw material for specialty products.

Processing activities will take place at Delmas 2 in Port-au-Prince. The facility was inaugurated in 2014 and has been expanded several times since. It includes bulk storage capacity of over 5000 metric tons, a brine-washing system of approximately 30 tons per day, processing capacity of approximately 700 tons per month, a laboratory and Quality Assurance facilities, and final product storage capacity of about 500 tons.

Iodine occurs naturally in the earth’s air, water, and soil. Iodine in the oceans enters the air from sea spray or as iodine gases. Once in the air, iodine can combine with moisture or with airborne particulates that can land on vegetation, soil, or surface water during a precipitation event. Iodine is persistent in soil because it binds to organic material. ([https://www.atsdr.cdc.gov/PHS/PHS.asp?id=477&tid=85](https://www.atsdr.cdc.gov/PHS/PHS.asp?id=477&tid=85))

The source of salt for this project will be dehydrated seawater, an established in-country process not funded by USAID.

---

\(^3\) **Construction, as defined by ADS 201 and 303**, includes: construction, alteration, or repair (including dredging and excavation) of buildings, structures, or other real property and includes, without limitation, improvements, renovation, alteration and refurbishment. The term includes, without limitation, roads, power plants, buildings, bridges, water treatment facilities, and vertical structures. In the box below, describe any construction planned for this project/activity. Refer to **ADS 201maw** for required Construction Risk Management procedures.
2.2 APPLICABLE AND APPROPRIATE PARTNER COUNTRY AND OTHER INTERNATIONAL STANDARDS (E.G. WHO), ENVIRONMENTAL AND SOCIAL LAWS, POLICIES, AND REGULATIONS

1. The 2017 Haitian Law on Food Fortification and micronutrient has made salt iodization mandatory and includes provision for salt processing and distribution


2.3 COUNTRY/MINISTRY/MUNICIPALITY ENVIRONMENTAL CAPACITY ANALYSIS (AS APPROPRIATE)

N/A

3.0 ANALYSIS OF POTENTIAL ENVIRONMENTAL RISK

**PROJECT/ACTIVITY 1: EXPAND AND UPDATE 2012 USAID SALT VALUE-CHAIN ANALYSIS**

<table>
<thead>
<tr>
<th>Project/Activity</th>
<th>Potential environmental and social impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project/Activity 1 — Expand and update 2012 USAID Salt Value-chain Analysis</td>
<td>No environmental or adverse social impacts.</td>
</tr>
</tbody>
</table>

**PROJECT/ACTIVITY 2: PROCESSING OF IODIZED SALT**

Handling of concentrates and continuous exposure to workers at the processing plant(s) produce the greatest risks to human health. Spills of concentrated raw materials or spills of large quantities of processed material pose the greatest threat to the environment.

Because iodine toxicity can result from exposure to concentrated potassium iodide or potassium iodate (used as the iodine source for iodizing salt), personal protective equipment must be worn by processing plant workers (Material Safety Data Sheet, Annex 3), particularly in dusty areas.

A spill clean-up response plan is required to address a potential industrial spill of potassium iodate or potassium iodide at the processing facility or during transport to the processing facility (Annex 3).

The source of salt for this project will be dehydrated seawater, an established in-country process that obviates the need for importation.

Iodine poisoning in humans is possible should an error in dosing occur at the processing plant.

Salt poisoning can result from an excessive ingestion of sodium chloride. The difference between excessive intake of iodized salt vs. non-iodized salt would not be significant due to the small dose of iodine involved and the overbearing toxicity of the salt itself (Leung and Braverman, 2013).
TABLE 3B. POTENTIAL IMPACTS – PROJECT/ACTIVITY 2

<table>
<thead>
<tr>
<th>Project/Activity</th>
<th>Potential environmental and social impacts</th>
</tr>
</thead>
</table>
| Project/Activity 2: Processing of Iodized Salt | 1) Potential minor impact if iodine concentrate is spilled. Exposure can be irritating to skin and eyes; concentrate could be toxic to aquatic life. However, a spill of iodized salt is no more dangerous than a spill of non-iodized salt.  
2) Exposure of processing plant workers to concentrated iodine or salt dust.  
3) Adverse effect on population if factory error leads to excess iodine in product.  
4) Unmet goal of reducing IDD if iodine content is below target. |

PROJECT/SUB-ACTIVITY 2.1: DISTRIBUTION OF IODIZED SALT

The proposed area of distribution of iodized salt is the entire country of Haiti. Overloaded trucks are subject to roll-over or loss of control which could result in an iodized salt spill.

TABLE 3C. POTENTIAL IMPACTS – PROJECT/SUB-ACTIVITY 2.1

<table>
<thead>
<tr>
<th>Project/Activity</th>
<th>Potential environmental and social impacts</th>
</tr>
</thead>
</table>
| Sub-activity 2.1: Distribution of Iodized Salt | 1) A transportation mishap could result in a spill of the product. Spills of large quantities of processed material pose the greatest threat to the environment. A large salt-spill could cause damage to vegetation or fresh water supplies, so a spill clean-up response plan is required.  
2) The environmental effects of a large spill of iodized salt are essentially no worse than the effects of spilling non-iodized salt. Because iodine is a naturally occurring element in the environment (Annex 1) and because of the small quantities of iodine applied to make the iodized salt product, normal use to season food should pose no threat beyond that posed by ingestion of a toxic level of non-iodized salt (Annex 4). |

4.0 ENVIRONMENTAL DETERMINATIONS

4.1 RECOMMENDED ENVIRONMENTAL DETERMINATIONS

The following table summarizes the recommended determinations based on the environmental analysis conducted. Upon approval, these determinations become affirmed, per 22 CFR 216.
Specified conditions, detailed in Section 5, become mandatory obligations of implementation, per ADS 204.

A determination of Categorical Exclusion is recommended for the Expansion and Update of the 2012 USAID Salt Value-chain Analysis. A Negative with Conditions determination is recommended for the Processing of Iodized Salt and for the Distribution of Iodized Salt.

**TABLE 4: ENVIRONMENTAL DETERMINATIONS**

<table>
<thead>
<tr>
<th>Projects/Activities</th>
<th>Categorical Exclusion Citation (if applicable)</th>
<th>Negative Determination</th>
<th>Positive Determination⁴</th>
<th>Deferral⁵</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project/Activity 1: Expand and update 2012 USAID Salt Value-chain Analysis</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Project /Activity 2: Processing of Iodized Salt</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project/Sub-activity 2.1: Distribution of Iodized Salt</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

⁴ Positive Determinations require preparation of a Scoping Statement and Environmental Assessment.

⁵ Deferrals must be cleared through an Amendment to this IEE prior to implementation of any deferred activities.

### 4.2 CLIMATE RISK MANAGEMENT

This section summarizes the methodology used and findings of the CRM Screening, in accordance with ADS 201mal. The project design team, in consultation with the CIL, considered the potential effect of climate risks/stressors on the sustainability of the project (changing precipitation patterns, rising temperature, floods, droughts, fires, landslides, etc.) in addition to the impact of project activities on the climate (increased greenhouse gas emissions, land use changes, etc.).

During this activity analysis, the following USAID documents on Haiti were consulted: Climate Vulnerability Profile, the GHG Emissions Factsheet, and the Climate Information Factsheet. Additional USAID resources consulted include the Climate Change Vulnerability Profile (https://www.climatelinks.org/countries/haiti#climate-info) and the Climate Risk Screening and Management Tool (https://www.climatelinks.org/sites/default/files/2017-05-24%20USAID%20CRM%20Activity%20tool%20%2B%20Annex.pdf).

The source of raw salt for this activity is in-country evaporated seawater. While that process is not addressed here because it is not funded by USAID, it is worth noting that coastal disturbances related to climate change could interrupt the supply of salt necessary for this project.

See Annex 1 for the complete CRM table.
5.0 CONDITIONS AND MITIGATION MEASURES

5.1 CONDITIONS

The conditions required are related to maintaining proper protocols for production of salt with the proper level of iodine through quality control /quality assurance at the processing plant; planning clean-up procedures for potential spills that would contaminate the environment; protecting the health and safety of processing plant workers; and monitoring iodine levels in consumers of the iodized salt product.

The environmental determinations in this IEE are contingent upon full implementation of the following general implementation and monitoring requirements, as well as ADS 204 and other relevant requirements.

5.1.1 During Pre-Award:

5.1.1.1 Pre-Award Briefings: As feasible, the design team and/or the cognizant environmental officer(s) (e.g., MEO, REA, BEO) will provide a pre-award briefing for potential offerors on environmental compliance expectations/responsibilities at bidders’ conferences.

5.1.1.2 Solicitations: The design team, in coordination with the A/CO, will ensure solicitations include environmental compliance requirements and evaluation criteria. A/CO will ensure technical and cost proposal requirements include approach, staffing, and budget sufficient for complying with the terms of this IEE.

5.1.1.3 Awards: The A/COR, in coordination with the A/CO, will ensure all awards and sub-awards, include environmental compliance requirements.

5.1.2 During Post-Award:

5.1.2.1 Post-Award Briefings: The A/COR and/or the cognizant environmental officer(s) (e.g., MEO, REA, BEO) will provide post-award briefings for the IP on environmental compliance responsibilities.

5.1.2.3 Workplans and Budgeting: The A/COR will ensure the IP integrates environmental compliance requirements in work plans and budgets to comply with requirements, including EMMP implementation and monitoring.

5.1.2.4 Staffing: The A/COR, in coordination with the IP, will ensure all awards have staffing capacity to implement environmental compliance requirements.

5.1.2.5 Records Management: The A/COR will maintain environmental compliance documents in the official project/activity file and upload records to the designated USAID environmental compliance database system.

5.1.2.6 Host Country Environmental Compliance: The A/COR will ensure the IP complies with applicable and appropriate host country environmental requirements unless
otherwise directed in writing by USAID. However, in the case of a conflict between the host country and USAID requirements, the more stringent shall govern.

5.1.2.7 Work Plan Review: The A/COR will ensure the IP verifies, at least annually or when activities are added or modified, that activities remain with the scope of the IEE. Activities outside of the scope of the IEE cannot be implemented until the IEE is amended.

5.1.2.8 IEE Amendment: If new activities are introduced or other changes to the scope of this IEE occur, an IEE Amendment will be required.

5.1.2.14 USAID Monitoring Oversight: The A/COR or designee, with the support of the cognizant environmental officer(s) (e.g., MEO, REA, BEO), will ensure monitoring of compliance with established requirements (e.g., by desktop reviews, site visits, etc.).

5.1.2.16 Environmental Compliance Mitigation and Monitoring Plan: The A/COR will ensure the IP develops, obtains approval for, and implements Environmental Mitigation and Monitoring Plans (EMMPs) that are responsive to the stipulated environmental compliance requirements.

5.1.2.17 Environmental Compliance Reporting: The A/COR will ensure the IP includes environmental compliance in regular project/activity reports, using indicators as appropriate; develops and submits the Environmental Mitigation and Monitoring Reports (EMMRs); and completes and submits a Record of Compliance (RoC) describing their implementation of EMMP requirements in conjunction with the final EMMR or at the close of sub activities (as applicable). And where required by Bureaus or Missions, ensure the IP prepares a closeout plan consistent with contract documentation for A/COR review and approval that outlines responsibilities for end-of-project operation, the transition of other operational responsibilities, and final EMMR with lessons learned.

5.1.2.18 Corrective Action: When noncompliance or unforeseen impacts are identified, IPs notify the A/COR, place a hold on activities, take corrective action, and report on the effectiveness of corrective actions. The A/COR initiates the corrective action process and ensures the IP completes and documents their activities. Where required by Bureaus or Missions, ensure Record of Compliance is completed.

5.2 AGENCY CONDITIONS

5.2.1 Sub-award Screening: The A/COR will ensure the IP uses an adequate environmental screening tool to screen any sub-award applications and to aid in the development of EMMPs.

5.2.2 Programmatic IEEs (PIEE): PIEEs stipulate requirements for additional environmental examination of new or country specific projects/activities. The A/COR of any project/activity being implemented under a PIEE will ensure appropriate reviews are conducted, typically through a Supplemental IEE, and approved by the cognizant BEO.
5.2.3 Supplemental IEEs (SIEEs): An SIEE will be prepared for any new project/activity being planned which fall under a PIEE. The SIEE will provide more thorough analysis of the planned activities, additional geographic context and baseline conditions as well as specific mitigation and monitoring requirements.

5.2.4 Other Supplemental Analyses: The A/COR will ensure supplemental environmental analyses that are called for in the IEE are completed and documented.

5.2.5 Resolution of Deferrals: If a deferral of the environmental threshold determination was issued, the A/COR will ensure that the appropriate 22CFR216 environmental analysis and documentation is completed and approved by the BEO before the subject activities are implemented.

5.2.6 Positive Determination: If a Positive Determination threshold determination was made, the A/COR will ensure a Scoping Statement, and if required an Environmental Assessment (EA), is completed and approved by the BEO before the subject activities are implemented.

5.2.7 Compliance with human subject research requirements: The AM, A/COR shall assure that the IP and sub-awardees, -grantees, and -contractors demonstrate completion of all requirements for ethics review and adequate medical monitoring of human subjects who participate in research trials carried out through this IEE and ensure appropriate records are maintained. All documentation demonstrating completion of required review and approval of human subject trials must be in place prior to initiating any trials and cover the period of performance of the trial as described in the research protocol.

5.3 MITIGATION MEASURES

The mitigation measures presented in this section constitute the minimum required based on available information at the time of this IEE and the environmental analysis in Section 4. These measures shall provide general direction for completing the project/activity Environmental Mitigation and Monitoring Plan (EMMP) and/or the EA and PERSUAP, if required.

Requirements for mitigation are listed in Table 5A. In addition to quality assurance/quality control measures, worker safety requirements, spill clean-up plans, and population monitoring to track health benefits, storage and handling requirements are addressed. It should be noted that changes in iodine content of the iodized salt can result from improper storage and handling (Disody et al., 1997). Iodine content can be significantly reduced by:

1) Sublimation (gaseous escape) of iodine from an unsealed container
2) High humidity
3) High heat (including during cooking)
4) Prolonged storage

Thus, the initial content achieved at the processing plant may not be maintained in the field.
**PROJECT/ACTIVITY 1**: Expand and update 2012 USAID Salt Value-chain Analysis

No mitigation is required for this activity.

**PROJECT/ACTIVITY 2 AND 2.1**: Processing and Distribution of Iodized Salt (Table 5A)

### TABLE 5A. SUMMARY OF MITIGATION MEASURES FOR PROJECT/ACTIVITY 2 AND 2.1

<table>
<thead>
<tr>
<th>Project/Activity</th>
<th>Mitigation Measure(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project/Activity 2: Processing of Iodized Salt</td>
<td>1) Quality Assurance/Quality Control measures at the production facility to monitor iodine levels in the iodized salt product.</td>
</tr>
<tr>
<td></td>
<td>2) Protection of the health of processing plant workers by following recommendations for personal protective equipment (Annexes 3 and 4).</td>
</tr>
<tr>
<td></td>
<td>3) Spill Response and Clean-up Plan for large-scale spills of concentrates and products during production and distribution (Annexes 3 and 4).</td>
</tr>
<tr>
<td></td>
<td>4) Proper disposal of iodine containers according to label instructions.</td>
</tr>
<tr>
<td></td>
<td>5) Monitoring of iodine levels in the human population ingesting the product—to assure levels sufficient to address nutritional iodine deficiency and to prevent iodine toxicity from overdose (this IEE sect. 2.2 WHO monitoring guidelines).</td>
</tr>
<tr>
<td>Project/Sub-activity 2.1: Distribution of Iodized Salt</td>
<td>1) Spill Response and Clean-up Plan for large-scale spills of products during distribution.</td>
</tr>
<tr>
<td></td>
<td>2) Changes in iodine content of the iodized salt can result from improper storage and handling (Disody et al., 1997). Steps required to ensure the initial iodine content achieved at the processing plant is maintained in the field:</td>
</tr>
<tr>
<td></td>
<td>• Using packaging that prevents sublimation (gaseous escape) of iodine from the product.</td>
</tr>
<tr>
<td></td>
<td>• Keeping the product dry</td>
</tr>
<tr>
<td></td>
<td>• Keeping the product away from heat</td>
</tr>
<tr>
<td></td>
<td>• Limiting storage time</td>
</tr>
<tr>
<td></td>
<td>3) Labeling of the product should include the above proper handling requirements, including a note that heat from cooking or baking will reduce the iodine content of the iodized salt.</td>
</tr>
</tbody>
</table>

### 6.0 LIMITATIONS OF THIS INITIAL ENVIRONMENTAL EXAMINATION

The determinations recommended in this document apply only to projects/activities and sub-activities described herein. Other projects/activities that may arise must be documented in either a
separate IEE, an IEE amendment if the activities are within the same project/activity, or other type of environmental compliance document and shall be subject to an environmental analysis within the appropriate documents listed above.

Other than projects/activities determined to have a Positive Threshold Determination, it is confirmed that the projects/activities described herein do not involve actions normally having a significant effect on the environment, including those described in 22 CFR 216.2(d).

In addition, other than projects/activities determined to have a Positive Threshold Determination and/or a pesticide management plan (PERSUAP), it is confirmed that the projects/activities described herein do not involve any actions listed below. Any of the following actions would require additional environmental analyses and environmental determinations:

- Support project preparation, project feasibility studies, or engineering design for activities listed in §216.2(d)(1);
- Affect endangered and threatened species or their critical habitats per §216.5, FAA 118, FAA 119;
- Provide support to extractive industries (e.g. mining and quarrying) per FAA 117;
- Promote timber harvesting per FAA 117 and 118;
- Lead to new construction, reconstruction, rehabilitation, or renovation work per §216.2(b)(1);
- Support agro-processing or industrial enterprises per §216.1(b)(4);
- Provide support for regulatory permitting per §216.1(b)(2);
- Lead to privatization of industrial facilities or infrastructure with heavily polluted property per §216.1(b)(4);
- Research, testing, or use of genetically engineered organisms per §216.1(b)(1), ADS 211;
- Assist the procurement (including payment in kind, donations, guarantees of credit) or use (including handling, transport, fuel for transport, storage, mixing, loading, application, clean-up of spray equipment, and disposal) of pesticides or activities involving procurement, transport, use, storage, or disposal of toxic materials. Pesticides cover all insecticides, fungicides, rodenticides, etc. covered under the Federal Insecticide, Fungicide, and Rodenticide Act per §216.2(e) and §216.3(b).

7.0 REVISIONS

Per 22 CFR 216.3(a)(9), when ongoing programs are revised to incorporate a change in scope or nature, a determination will be made as to whether such change may have an environmental impact not previously assessed. If so, this IEE will be amended to cover the changes. Per ADS 204, it is the responsibility of the USAID A/COR to keep the MEO/REA and BEO informed of any new information or changes in the activity that might require revision of this environmental analysis and environmental determination.
ATTACHMENTS:

Annex 1: Climate Risk Management Summary Table for Projects

Annex 2: Natural Occurrence of Iodine in the Environment

Annex 3: Material Safety Data Sheet for Potassium Iodate

Annex 4: Material Safety Data Sheet for Potassium Iodide

Annex 5: Material Safety Data Sheet for Iodized Table Salt

Annex 6: Technical Information for Bon Sel Dayiti

Annex 7: List of References
### Annex 1. Project Climate Risk Management Summary Table

<table>
<thead>
<tr>
<th>Defined or Anticipated Project Elements</th>
<th>Climate Risks</th>
<th>Risk Rating</th>
<th>How Risks are Addressed at Project Level</th>
<th>Further Analysis and Actions for Activity Design/Implementation</th>
<th>Opportunities to Strengthen Climate Resilience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value-chain analysis</td>
<td>None</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Processing of iodized salt</td>
<td>Climate change-related coastal disturbance could affect seawater evaporation activities that could in turn affect the salt supply needed for the iodization process</td>
<td>Low</td>
<td>Acceptable due to low risk and great benefit to human population in the reduction of Iodine Deficiency Diseases</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Distribution of iodized salt</td>
<td>Flooding could affect transportation routes and product storage facilities; this product needs to remain dry</td>
<td>Low</td>
<td>Insignificant change from distributing non-iodized salt (pre-activity baseline) to distributing iodized salt.</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

---

6 Purpose/Sub-purpose, Area of Focus, or Activity/ Mechanism, etc.
7 List key risks related to the project elements identified through either the strategy- or project-level climate risk assessment.
8 Low/Moderate/High
9 Describe how risks have been addressed at the project level. If a decision has been made to accept the risk, briefly explain why.
10 Describe CRM measures to be integrated into activity design or implementation, including additional analysis, if applicable.
11 Describe opportunities to achieve development objectives by integrating climate resilience or mitigation measures.
ANNEX 2. Natural Occurrence of Iodine in the Environment

Lenntech, an international engineering company based in the Netherlands:

https://www.lenntech.com/periodic/elements/i.htm#ixzz5leuecaB1

Iodine in the environment

Iodine is added to nearly any kind of salt that is applied. It is an ingredient of bread, sea fish and oceanic plants. Iodine is naturally present in the ocean and some sea fish and water plants will store it in their tissues.

Iodine can be found naturally in air, water and soil. The most important sources of natural iodine are the oceans. About 400,000 tonnes of iodine escape from the oceans every year as iodide in sea spray or as iodide, hydridchloric acid and methyl iodide, produced by marine organisms. Much of it is deposited on land where it may become part of the biocycle.

There are some iodine-containing minerals, such as alutarite, found in Chile and iodargyte, found in Colorado, Nevada and New Mexico. World-wide industrial production of iodine is about 13,000 tonnes per year, mainly in Chile and Japan, plus small amounts in Russia and USA. Iodine is extracted from natural brines and oil brines, which have up to 100 ppm of the element or form chilean nitrate deposits. Known reserves of easily accessible iodine amount is around 2 million tonnes.
ANNEX 3. Material Safety Data Sheet for Potassium Iodate

Material Safety Data Sheet
Potassium iodate

ACC# 19445

Section 1 - Chemical Product and Company Identification

**MSDS Name:** Potassium iodate

**Catalog Numbers:** AC196740000, AC196741000, AC196745000, AC201770000, AC201771000, AC201775000, AC418240000, AC418240050, AC418241000, 41824-5000, P253-100, P253-500

**Synonyms:** Iodic acid, potassium salt.

**Company Identification:**
Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410

**For information, call:** 201-796-7100

**Emergency Number:** 201-796-7100

**For CHEMTREC assistance, call:** 800-424-9300

**For International CHEMTREC assistance, call:** 703-527-3887

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
<th>EINECS/ELINCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>7758-05-6</td>
<td>Potassium iodate</td>
<td>100</td>
<td>231-831-9</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**

Appearance: white solid.

**Danger!** Strong oxidizer. Contact with other material may cause a fire. May cause severe eye, skin and respiratory tract irritation with possible burns. May cause kidney damage. May cause central nervous system effects.

**Target Organs:** Kidneys, central nervous system.

**Potential Health Effects**

**Eye:** May cause eye irritation. May cause conjunctivitis. May cause permanent corneal opacification.

**Skin:** May cause severe irritation and possible burns.

**Ingestion:** May cause burns to the gastrointestinal tract. May cause nausea, vomiting, and diarrhea, possibly with blood.

**Inhalation:** May cause acute pulmonary edema, asphyxia, chemical pneumonitis, and upper airway obstruction caused by edema.
**Chronic:** Prolonged or repeated skin contact may cause irritation. Prolonged or repeated exposure may cause gastrointestinal irritation and kidney damage. Chronic ingestion may cause central nervous system failure. Effects may be delayed.

### Section 4 - First Aid Measures

**Eyes:** Get medical aid. Immediately flush eyes with plenty of water for at least 15 minutes.

**Skin:** Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.

**Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

**Inhalation:** Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

**Notes to Physician:** Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Strong oxidizer. Contact with other material may cause fire. Use water spray to keep fire-exposed containers cool. Use water with caution and in flooding amounts. This material is an explosion hazard when exposed to heat, mechanical shock, or friction. Containers may explode when heated. Runoff to sewer may create fire or explosion hazard.

**Extinguishing Media:** Contact professional fire-fighters immediately. Cool containers with flooding quantities of water until well after fire is out. For small fires, do NOT use dry chemicals, carbon dioxide, halon or foams. USE WATER ONLY. For large fires flood fire with water from a distance.

**Flash Point:** Not available.

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 1; Special Hazard: OX

### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Keep combustibles (wood, paper, oil, etc..) away from spilled material.

### Section 7 - Handling and Storage
Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid contact with clothing and other combustible materials. Keep from contact with clothing and other combustible materials. Avoid breathing dust. Inform laundry personnel of contaminant's hazards.

Storage: Do not store near combustible materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from flammable liquids. Keep away from reducing agents.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium iodate</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs: Potassium iodate: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Appearance: white

Odor: odorless

pH: Not available.

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: 560 deg C

Decomposition Temperature: 560 deg C

Solubility: Soluble in water

Specific Gravity/Density: 3.89

Molecular Formula: KIO3

Molecular Weight: 214.00
Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.
**Conditions to Avoid:** High temperatures, dust generation.
**Incompatibilities with Other Materials:** Reducing agents, combustible materials, flammable liquids.
**Hazardous Decomposition Products:** Irritating and toxic fumes and gases, oxides of potassium, iodine.
**Hazardous Polymerization:** Has not been reported.

Section 11 - Toxicological Information

**RTECS#:**
**CAS# 7758-05-6:** NN1350000
**LD50/LC50:** Not available.

**Carcinogenicity:**
CAS# 7758-05-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No data available.
**Teratogenicity:** No data available.
**Reproductive Effects:** No data available.
**Mutagenicity:** No data available.
**Neurotoxicity:** No data available.
**Other Studies:**

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
**RCRA P-Series:** None listed.
**RCRA U-Series:** None listed.

Section 14 - Transport Information
### Section 15 - Regulatory Information

#### US FEDERAL

**TSCA**
- CAS# 7758-05-6 is listed on the TSCA inventory.

**Health & Safety Reporting List**
- None of the chemicals are on the Health & Safety Reporting List.

**Chemical Test Rules**
- None of the chemicals in this product are under a Chemical Test Rule.

**Section 12b**
- None of the chemicals are listed under TSCA Section 12b.

**TSCA Significant New Use Rule**
- None of the chemicals in this material have a SNUR under TSCA.

**CERCLA Hazardous Substances and corresponding RQs**
- None of the chemicals in this material have an RQ.

**SARA Section 302 Extremely Hazardous Substances**
- None of the chemicals in this product have a TPQ.

**SARA Codes**
- CAS # 7758-05-6: fire.

**Section 313**
- No chemicals are reportable under Section 313.

**Clean Air Act:**
- This material does not contain any hazardous air pollutants.
- This material does not contain any Class 1 Ozone depletors.
- This material does not contain any Class 2 Ozone depletors.

**Clean Water Act:**
- None of the chemicals in this product are listed as Hazardous Substances under the CWA.
- None of the chemicals in this product are listed as Priority Pollutants under the CWA.
- None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**
- None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**
- CAS# 7758-05-6 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

**California Prop 65**
- California No Significant Risk Level: None of the chemicals in this product are listed.

**European/International Regulations**
- European Labeling in Accordance with EC Directives

---

<table>
<thead>
<tr>
<th>Shipping Name:</th>
<th>OXIDIZING SOLID, N.O.S.</th>
<th>OXIDIZING SOLID NOS (POTASSIUM IODATE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Class:</td>
<td>5.1</td>
<td>5.1</td>
</tr>
<tr>
<td>UN Number:</td>
<td>UN1479</td>
<td>UN1479</td>
</tr>
<tr>
<td>Packing Group:</td>
<td>II</td>
<td>II</td>
</tr>
</tbody>
</table>
Hazard Symbols:
O
Risk Phrases:
R 22 Harmful if swallowed.
R 8 Contact with combustible material may cause fire.

Safety Phrases:
S 17 Keep away from combustible material.

WGK (Water Danger/Protection)
CAS# 7758-05-6: 1

Canada - DSL/NDSL
CAS# 7758-05-6 is listed on Canada's DSL List.

Canada - WHMIS
This product has a WHMIS classification of C.
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16 - Additional Information

MSDS Creation Date: 12/12/1997
Revision #7 Date: 2/15/2008
ANNEX 4: Material Data Safety Sheet for Potassium Iodide

Material Safety Data Sheet
Potassium Iodide

ACC# 19435

Section 1 - Chemical Product and Company Identification

**MSDS Name:** Potassium Iodide  
**Synonyms:** Knollide, potide  
**Company Identification:**  
Fisher Scientific  
1 Reagent Lane  
Fairlawn, NJ 07410  
**For information, call:** 201-796-7100  
**Emergency Number:** 201-796-7100  
**For CHEMTREC assistance, call:** 800-424-9300  
**For International CHEMTREC assistance, call:** 703-527-3887

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
<th>EINECS/ELINCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>7681-11-0</td>
<td>Potassium iodide</td>
<td>100</td>
<td>231-659-4</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**

Appearance: colorless or white. **Caution!** May cause respiratory tract irritation. May cause eye and skin irritation. May cause digestive tract irritation with nausea, vomiting, and diarrhea. May cause fetal effects.  
**Target Organs:** None.

**Potential Health Effects**

**Eye:** Causes eye irritation.

**Skin:** May cause skin irritation. Chronic ingestion of iodides during pregnancy has resulted in fetal death, severe goiter, and cretinoid appearance of the newborn.

**Ingestion:** Causes gastrointestinal irritation with nausea, vomiting and diarrhea.

**Inhalation:** May cause respiratory tract irritation.
**Chronic:** Chronic exposure can lead to iodism characterized by salivation, nasal discharge, sneezing, conjunctivitis, fever, laryngitis, bronchitis, stomatitis, and skin rashes. Chronic ingestion of iodides during pregnancy has resulted in fetal death, severe goiter, and cretinoid appearance of the newborn.

---

**Section 4 - First Aid Measures**

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid.

**Skin:** Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

**Inhalation:** Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

**Notes to Physician:** Treat symptomatically and supportively.

**Antidote:** None reported.

---

**Section 5 - Firefighting Measures**

**General Information:** Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products.

**Extinguishing Media:** For small fires, use water spray, dry chemical, carbon dioxide or chemical foam.

**Autoignition Temperature:** Not applicable.

**Flash Point:** Not applicable. Estimated Health: 1; Flammability: 0; Reactivity: 0 Explosion Limits, Lower: Not available. Upper: Not available.

---

**Section 6 - Accidental Release Measures**

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions.

---

**Section 7 - Handling and Storage**

**Handling:** Wash thoroughly after handling. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

**Storage:** Store in a cool, dry, well-ventilated area away from incompatible substances.
Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium iodide</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs: Potassium iodide: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Appearance: colorless or white

Odor: odorless

pH: 7 to 9

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate:

Viscosity: Not available.

Boiling Point: 2426 deg F

Freezing/Melting Point: 1256 deg F

Decomposition Temperature: Not available.

Solubility: Soluble in water

Specific Gravity/Density: 3.13

Molecular Formula: KI

Molecular Weight:

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, light, moisture.

Incompatibilities with Other Materials: Incompatible with salts of alkaloids, chloral hydrate, calomel(mercurous chloride), potassium chlorate, metallic salts, tartaric and other acids, bromine trifluoride,
and fluorine perchlorate.

**Hazardous Decomposition Products:** Oxides of potassium, iodine.

**Hazardous Polymerization:** Has not been reported.

---

### Section 11 - Toxicological Information

**RTECS#:**
- CAS# 7681-11-0: TT2975000

**LD50/LC50:**
- Not available.

**Carcinogenicity:**
- CAS# 7681-11-0: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

**Epidemiology:** No data available.

**Teratogenicity:** Iodine salts can cause deformity, illness, and death of a fetus.

**Reproductive Effects:** No data available.

**Neurotoxicity:** No data available.

**Mutagenicity:** No data available.

**Other Studies:** No data available.

---

### Section 12 - Ecological Information

**Ecotoxicity:** This chemical is expected to cause little oxygen depletion in aquatic systems. This chemical has a moderate potential to affect aquatic organisms.

**Environmental Fate:** If diluted with a large amount of water, this chemical released directly or indirectly into the environment is not expected to have a significant impact.

**Physical/Chemical:** No information found.

**Other:** No information found.

---

### Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

**RCRA D-Series Maximum Concentration of Contaminants:** None listed.

**RCRA D-Series Chronic Toxicity Reference Levels:** None listed.

**RCRA F-Series:** None listed.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

---

### Section 14 - Transport Information
US FEDERAL

TSCA
CAS# 7681-11-0 is listed on the TSCA inventory.

Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.

Section 12b
None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.

SARA

Section 302 (RQ)
None of the chemicals in this material have an RQ.

Section 302 (TPQ)
None of the chemicals in this product have a TPQ.

SARA Codes
CAS # 7681-11-0: acute, chronic.

Section 313
No chemicals are reportable under Section 313.

Clean Air Act:
This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.

Clean Water Act:
None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:
None of the chemicals in this product are considered highly hazardous by OSHA.

STATE
CAS# 7681-11-0 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols:
Not available.

Risk Phrases:
Safety Phrases:

WGK (Water Danger/Protection)
CAS# 7681-11-0: 1
Canada
CAS# 7681-11-0 is listed on Canada's DSL/NDSL List.
This product has a WHMIS classification of D2A.
CAS# 7681-11-0 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

Section 16 - Additional Information

**MSDS Creation Date:** 1/04/1995  
**Revision #14 Date:** 12/12/1997

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.
ANNEX 5: Material Safety Data Sheet for Iodized Table Salt

SAFETY DATA SHEET

1. Identification Product identifier Iodized Table Salt Other means of identification SDS number I2 Synonyms Iodized Table Salt. * Diamond Crystal® Salt Sense® Iodized Table Salt. * Diamond Crystal® Iodized Table Salt. * Diamond Crystal® Iodized Salt [Box]. * Diamond Crystal® Restaurant Iodized Salt. * Leslie® Iodized Table Salt, Colonial® Iodized Table Salt. * Sterling® Iodized Table Salt. * Red Cross® Iodized Table Salt. * Private Brand Iodized Table Salt. Recommended use Salt may be intended for food or animal feed (agricultural) as well as several industrial applications including deicing and water conditioning. Recommended restrictions None known. Manufacturer/Importer/Supplier/Distributor information Manufacturer Company name Cargill Incorporated Address Minneapolis, MN 55440 Telephone 1- 888-385-7258 Website www.cargillsalt.com Emergency telephone number CHEMTREC (800) 424-9300

2. Hazard(s) identification Not classified. Physical hazards Not classified. Health Hazards Not classified. OSHA defined hazards

Label elements None. Hazard symbol Signal word None. Hazard statement The mixture does not meet the criteria for classification. Precautionary statement Prevention Observe good industrial hygiene practices. Response Wash hands after handling. Storage Store away from incompatible materials. Disposal Dispose of waste and residues in accordance with local authority requirements. Hazard(s) not otherwise classified (HNOC) None known.

3. Composition/information on ingredients Mixtures

7647-14-5 99.0-99.901 Sodium Chloride CAS number %Chemical name
1306-06-5 <1.0 Calcium Phosphate, Tribasic
7631-86-9 <1.0 Silicon dioxide
144-55-8 0.05-0.75 Sodium bicarbonate
1344-00-9 0.0-0.75 Sodium Silicoaluminate
50-99-7 0.04-0.075 Dextrose

Iodized Table Salt SDS US 922329 Version #: 01 Revision date: - Issue date: 15-September-2014

7681-11-0 0.006-0.010 Potassium Iodide

13601-19-9 0.0-0.0013 Sodium Ferrocyanide Decahydrate

4. First-aid measures Inhalation If dust from the material is inhaled, remove the affected person immediately to fresh air. Call a physician if symptoms develop or persist. Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists. Eye contact Rinse with water. Get medical attention if irritation develops and persists. Ingestion Give one or two glasses of water if patient is alert and able to
swallow. Get medical attention if symptoms occur. Most important symptoms/effects, acute and delayed
Direct contact with eyes may cause temporary irritation. Indication of immediate medical attention and
special treatment needed Treat symptomatically. General information Ensure that medical personnel are
aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon
dioxide (CO2). Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread
the fire. Specific hazards arising from the chemical During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full
protective clothing must be worn in case of fire. Fire fighting equipment/instructions Use water spray to cool
unopened containers. Specific methods Use standard firefighting procedures and consider the hazards of
other involved materials. General fire hazards This product is not flammable or combustible.

6. Accidental release measures Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away. Avoid inhalation of dust from the spilled material. Use a NIOSH/MSHA
approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Do
not touch damaged containers or spilled material unless wearing appropriate protective clothing. For
personal protection, see section 8 of the SDS. Methods and materials for containment and cleaning up If
sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the
product. Collect dust using a vacuum cleaner equipped with HEPA filter. Minimize dust generation and
accumulation. Avoid release to the environment. Following product recovery, flush area with water. For
waste disposal, see section 13 of the SDS. Environmental precautions Avoid discharge into drains, water
courses or onto the ground.

7. Handling and storage Precautions for safe handling Provide appropriate exhaust ventilation at places
where dust is formed. Minimize dust generation and accumulation. Avoid breathing dust. Avoid contact with
eyes. Avoid contact with water and moisture. Keep away from strong acids. May evolve chlorine gas when
in contact with strong acids. Hydrogen chloride release above 1400°F. Practice good housekeeping.
Conditions for safe storage, including any incompatibilities Store in original tightly closed container. Store in
a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Becomes
hygroscopic at 70-75% relative humidity. Avoid humid or wet conditions as product will cake and become
hard.

Iodized Table Salt SDS US 922329 Version #: 01 Revision date: Issue date: 15-September-2014

8. Exposure controls/personal protection Occupational exposure limits US. OSHA Table Z-3 (29 CFR
1910.1000)

<table>
<thead>
<tr>
<th>ValueType</th>
<th>Components</th>
<th>TWA</th>
<th>ppmcf</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon dioxide (CAS 7631-86-9)</td>
<td>0.8</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Potassium Iodide (CAS 7681-11-0)</td>
<td>0.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Silicoaluminate (CAS 1344-00-9)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ACGIH Threshold Limit Values

Value Type Form Components TWA 0.01 ppm Inhalable fraction and vapor. Potassium Iodide (CAS 7681-
11-0) TWA 1 mg/m3 Respirable fraction. Sodium Silicoaluminate (CAS 1344-00-9) US. NIOSH: Pocket
Guide to Chemical Hazards
ValueTypeComponents TWA 6 mg/m3 Silicon dioxide (CAS 7631-86-9) TWA 2 mg/m3 Sodium Silicoaluminate (CAS 1344-00-9) Biological limit values No biological exposure limits noted for the ingredient(s). Appropriate engineering controls Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing. Individual protection measures, such as personal protective equipment Eye/face protection Unvented, tight fitting goggles should be worn in dusty areas. Skin protection Hand protection Wear appropriate chemical resistant gloves. Other Wear suitable protective clothing. Respiratory protection Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties Appearance White crystalline solid Physical state Solid. Form Crystalline solid. Color White. Odor Halogen odor Odor threshold Not available. pH Not available. Melting point/freezing point 1473.8 °F (801 °C) Initial boiling point and boiling range 2669 °F (1465 °C) (760 mmHg) Flash point Not available. Evaporation rate Not available. Flammability (solid, gas) Not available. Upper/lower flammability or explosive limits Flammability limit - lower (%) Not available. Flammability limit - upper (%) Not available. Explosive limit - lower (%) Not available. Explosive limit - upper (%) Not available. Vapor pressure 2.4 mm Hg (1376.6 °F (747 °C)) Vapor density Not available. Relative density 2.16 (H2O = 1) Solubility(ies) Solubility (water) 26.4 % Partition coefficient (n-octanol/water) Not available. Auto-ignition temperature Not available. Decomposition temperature Not available. Viscosity Not available. Other information Bulk density 53 - 83 lb/ft³ Molecular formula NaCl, 3Ca3(PO4)2·Ca(OH)2, SiO2, Na2O·Al2O3·13.2SiO2, NaHCO3, KI, Na4Fe(CN)6·10H2O Molecular weight 58.44, 1004.7, 60.09, 957.05, 84.00, 166.02, 484.06 pH in aqueous solution 6.7 - 7.3

10. Stability and reactivity Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport. Chemical stability Material is stable under normal conditions. Possibility of hazardous reactions No dangerous reaction known under conditions of normal use. Conditions to avoid Contact with incompatible materials. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Incompatible materials Avoid contact with strong acids. Becomes corrosive to metals when wet. Hazardous decomposition products May evolve chlorine gas when in contact with strong acids.

11. Toxicological information Information on likely routes of exposure Inhalation Inhalation of dusts may cause respiratory irritation. Skin contact Prolonged or repeated skin contact may cause irritation. If applied to damaged skin, absorption can occur with effects similar to those via ingestion. Eye contact Dust in the eyes will cause irritation. Ingestion Expected to be a low ingestion hazard. Symptoms related to the
physical, chemical and toxicological characteristics Eye and skin contact: Exposure may cause temporary irritation, redness, or discomfort. For ingestion, consuming less than a few grams would not be harmful. The following effects were observed after ingesting an excessive quantity: nausea and vomiting, diarrhea, cramps, restlessness, irritability, dehydration, water retention, nose bleed, gastrointestinal tract damage, fever, sweating, sunken eyes, high blood pressure, muscle weakness, dry mouth and nose, shock, cerebral edema (fluid on brain), pulmonary edema (fluid in lungs), blood cell shrinkage, and brain damage (due to dehydration of brain cells). Death is generally due to cardiovascular collapse or CNS damage. Information on toxicological effects Acute toxicity In some cases of confirmed hypertension, ingestion may result in elevated blood pressure. Ingestion of large amounts (greater than 0.1 pound) can cause gastrointestinal upset and irritation of the stomach. Rare cases of over exposure can lead to systemic toxicity related to the binding of ionized blood calcium.

Iodized Table Salt SDS US 922329  Version #: 01  Revision date: -  Issue date: 15-September-2014 4 / 8

Test Results Components Species Dextrose (CAS 50-99-7)

LD Rabbit Other Acute
35 g/kg

Potassium Iodide (CAS 7681-11-0)
LD50 Oral Acute
500 - 5000 mg/kg Mouse 1000 mg/kg Rat 4340 mg/kg

LD50 Mouse Other
430 mg/kg Rat > 285 mg/kg

Sodium bicarbonate (CAS 144-55-8)
LD50 Rat Oral Acute
> 4000 mg/kg

Sodium Chloride (CAS 7647-14-5)
LD50 Mouse Oral Acute
4000 mg/kg Rat 3000 mg/kg

LD50 Mouse Other
2602 mg/kg

Sodium Silicoaluminate (CAS 1344-00-9)
LD50 Rabbit Dermal Acute

> 5000 mg/kg, 24 Hours

LC50 Rat Inhalation

> 2.08 mg/l, 4 Hours

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation. Serious eye damage/eye irritation Dust in the eyes will cause irritation. Respiratory or skin sensitization Respiratory sensitization Not available. Skin sensitization This product is not expected to cause skin sensitization. Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. IARC Monographs. Overall Evaluation of Carcinogenicity Silicon dioxide (CAS 7631-86-9) 3 Not classifiable as to carcinogenicity to humans. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Not listed. Reproductive toxicity This product is not expected to cause reproductive or developmental effects. Specific target organ toxicity single exposure Not classified. Specific target organ toxicity repeated exposure Not classified. Aspiration hazard Due to the physical form of the product it is not an aspiration hazard.

Iodized Table Salt SDS US 922329 Version #: 01 Revision date: - Issue date: 15-September-2014

12. Ecological information Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. Components Test Results Species Potassium Iodide (CAS 7681-11-0) Aquatic LC50Fish 896 mg/l, 96 hours Rainbow trout,donaldson trout (Oncorhynchus mykiss) Sodium bicarbonate (CAS 144-55-8) Aquatic EC50Crustacea 2350 mg/l, 48 hours Daphnia LC50Fish 8600 mg/l, 96 hours Bluegill (Lepomis macrochirus) Sodium Chloride (CAS 7647-14-5) Aquatic EC50Crustacea 340.7 - 469.2 mg/l, 48 hours Water flea (Daphnia magna) LC50Fish 4747 - 7824 mg/l, 96 hours Rainbow trout,donaldson trout (Oncorhynchus mykiss) Sodium Silicoaluminate (CAS 1344-00-9) Aquatic LC50Fish 1800 - 3200 mg/l, 96 hours Guppy (Poecilia reticulata) Persistence and degradability No data is available on the degradability of this product. Bioaccumulative potential No data available. Partition coefficient n-octanol / water (log Kow) Dextrose (CAS 50-99-7) -3.24 Mobility in soil No data available. Other adverse effects None known.

13. Disposal considerations Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Local disposal regulations Dispose in accordance with all applicable regulations. Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company. Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information DOT Not regulated as dangerous goods. IATA Not regulated as dangerous goods. IMDG Not regulated as dangerous goods. Not applicable. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
15. Regulatory information

US federal regulations All components are on the U.S. EPA TSCA Inventory List. This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Iodized Table Salt SDS US 922329  Version #: 01  Revision date: -  Issue date: 15-September-2014 6 / 8


Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List Not regulated. Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) Not regulated. Safe Drinking Water Act (SDWA) Not regulated. US state regulations US. Massachusetts RTK - Substance List Silicon dioxide (CAS 7631-86-9) US. New Jersey Worker and Community Right-to-Know Act Silicon dioxide (CAS 7631-86-9) US. Pennsylvania Worker and Community Right-to-Know Law Silicon dioxide (CAS 7631-86-9) Sodium Silicoaluminate (CAS 1344-00-9) US. Rhode Island RTK Not regulated. US. California Proposition 65 California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance Not listed. International Inventories Country(s) or region Inventory name On inventory (yes/no)*

Australian Inventory of Chemical Substances (AICS) YesAustralia Domestic Substances List (DSL) YesCanada Non-Domestic Substances List (NDSL) NoCanada Inventory of Existing Chemical Substances in China (IECSC) YesChina European Inventory of Existing Commercial Chemical Substances (EINECS) YesEurope European List of Notified Chemical Substances (ELINCS) NoEurope Inventory of Existing and New Chemical Substances (ENCS) YesJapan Existing Chemicals List (ECL) YesKorea New Zealand Inventory YesNew Zealand Philippine Inventory of Chemicals and Chemical Substances (PICCS) YesPhilippines

Iodized Table Salt SDS US 922329  Version #: 01  Revision date: -  Issue date: 15-September-2014 7 / 8

Country(s) or region Inventory name On inventory (yes/no)*

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s). A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s). Toxic Substances Control Act (TSCA) Inventory Yes. United States & Puerto Rico

16. Other information, including date of preparation or last revision Issue date 15-September-2014 Revision date Version # 01 HMIS® ratings Health: 1 Flammability: 0 Physical hazard: 0 Personal protection: A

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It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations. It is also the responsibility of the user to maintain a safe workplace. The user should consider the health hazards and safety information provided herein as a guide and should take the necessary steps to instruct employees and to develop work practice procedures to ensure a safe work environment.

This information is not intended as a license to operate under, or a recommendation to practice or infringe upon any patent of this Company or others covering any process, composition of matter or use.
ANNEX 6: Technical Information Provided by Bon Sel Dayiti Iodized Salt

Technical Information       BON SEL DAYITI Iodized Coarse Salt

DESCRIPTION: Bon Sel Dayiti iodized Coarse Salt is a coarse screened, white crystalline solid obtained by the solar evaporation of Caribbean seawater. The salt is harvested, washed with clean brine to remove surface impurities, drained of excess moisture, screened to size, processed, fortified and bagged.

COMPLIANCE:

Bon Sel Dayiti Iodized Coarse Salt is approved for direct human consumption by the Haitian Ministry of Health.

ADDITIVES: Bon Sel Dayiti Iodized Coarse Salt contains 40 parts per million of potassium iodate (KIO3) for the prevention of iodine deficiency syndromes.

APPLICATIONS: Bon Sel Dayiti Iodized Coarse Salt is intended for general human consumption and food processing applications.

PACKAGING AND SHIPPING: Bon Sel Dayiti Iodized Coarse Salt is available in bags of 25.0 kg or 12.5 kg bales containing twenty-five 0.5-kg sachets.

METHODS OF ANALYSIS:

The original methods of raw salt analysis are taken from the ASTM designation E 534-98, AWWA B200-03. Testing for KIO3 and DEC is done at the production site by qualified personnel.

CHEMICAL ANALYSIS:

1By difference of impurities. 21100C for 2 hours.

SIEVE ANALYSIS:

Note: Sieve analysis is reported as percent retained.

BULK DENSITY:

Note: Bulk density is reported as loose (uncompacted).

Component Units Typical Specification

Sodium Chloride (dry basis)1 % 99.00 99.6 min.

Calcium & Magnesium (as Ca) % 0.25 -.

Sulfate (as SO4) % 0.25

Water Insolubles % 0.50 0.75 max.
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Typical Specification</th>
<th>Pounds per Cubic Foot</th>
<th>Grams per Liter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Moisture</td>
<td>2 % 2.4 3.5 max.</td>
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<td></td>
</tr>
<tr>
<td>U.S.S. Mesh</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening Inches</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening Microns Typical Specification</td>
<td></td>
<td>#4 0.250 6350 45% 50% max</td>
<td>82 79 - 85</td>
</tr>
<tr>
<td></td>
<td></td>
<td>#8 0.125 3175 40%</td>
<td>1265 - 1360</td>
</tr>
<tr>
<td>Pan</td>
<td>- - 15% 20% max.</td>
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</tr>
<tr>
<td>Parameter Typical Specification</td>
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</tr>
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PRODUCING LOCATION: Port au Prince, Haiti Revised June 2018

Congregation de Sainte Croix 53 Rue Chareron Port au Prince, Haiti 509-3668-3621 www.bonseldayiti.com

NOTICE: All of the above statements, recommendations, suggestions and data are based on our laboratory results, and we believe same to be reliable. Nevertheless, with the exception of data showing an express guaranty (such as in the case of products specifically designed for use as nutrient supplements), all such statements, recommendations, suggestions and data hereinabove presented are made without guaranty, warranty or responsibility of any kind on our part.
ANNEX 7. References


USAID. 2017. Climate Risk Management for USAID Projects and Activities: Mandatory Reference for ADS Chapter 201. Partial Revision Date: 04/26/2017


USAID. 2017. Climate Risk Management for USAID Projects and Activities: Mandatory Reference for ADS Chapter 201. Partial Revision Date: 04/26/2017

