SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

- Trade name SOLVAIR® SELECT SBC

1.2 Relevant identified uses of the substance or mixture and uses advised against

Uses of the Substance / Mixture

- Purifying flue gas

1.3 Details of the supplier of the safety data sheet

Company

SOLVAY CHEMICALS, INC.
3737 Buffalo Speedway,
Suite 800,
Houston, TX 77098
USA
Tel: +1-800-7658292; +1-713-5256800
Fax: +1-713-5257804

1.4 Emergency telephone

FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT CONTACT: CHEMTREC 800-424-9300 within the United States and Canada, or 703-527-3887 for international collect calls.

SECTION 2: Hazards identification

Although OSHA has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects.

2.1 Classification of the substance or mixture

HCS 2012 (29 CFR 1910.1200)

Eye irritation, Category 2B	H320: Causes eye irritation.

2.2 Label elements

HCS 2012 (29 CFR 1910.1200)

Signal Word

- Warning

Hazard Statements

- H320	Causes eye irritation.

Precautionary Statements

Prevention

- P264	Wash skin thoroughly after handling.

Response

- P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P313	If eye irritation persists: Get medical advice/ attention.

Additional Labeling
- The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity: 5 %

2.3 Other hazards which do not result in classification

None identified

SECTION 3: Composition/information on ingredients

3.1 Substance

- Not applicable, this product is a mixture.

3.2 Mixture

Hazardous Ingredients and Impurities

Chemical name	Identification number CAS-No.	Concentration [%]
Carbonic acid sodium salt (1:1)	144-55-8	>= 95

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1 Description of first-aid measures

In case of inhalation

- Remove to fresh air.

In case of skin contact

- Wash off with plenty of water.

In case of eye contact

- Rinse thoroughly with plenty of water, also under the eyelids.
- If eye irritation persists, consult a specialist.

In case of ingestion

- If a large amount is swallowed, get medical attention.

- If victim is conscious:
- If swallowed, rinse mouth with water (only if the person is conscious).

- If victim is unconscious:
- Not applicable

4.2 Most important symptoms and effects, both acute and delayed

In case of inhalation

Effects
- Mechanical irritation from the particulates generated by the product.

In case of skin contact

Effects
- No hazards to be specially mentioned.

Repeated or prolonged exposure
- Contact with dust can cause mechanical irritation or drying of the skin.

In case of eye contact

Effects

- Mechanical irritation from the particulates generated by the product.

In case of ingestion

Effects

- Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

4.3 Indication of any immediate medical attention and special treatment needed

- no data available

SECTION 5: Firefighting measures

Flash point	Not applicable
Autoignition temperature	The product is not flammable.
Flammability / Explosive limit	Lower flammability/explosion limit : The product is not flammable.

5.1 Extinguishing media

Suitable extinguishing media

- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

- None.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting

- Not combustible.

Hazardous combustion products:

- none

5.3 Advice for firefighters

Special protective equipment for fire-fighters

- In the event of fire, wear self-contained breathing apparatus.
- Use personal protective equipment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel

- Evacuate personnel to safe areas.
- Avoid dust formation.

Advice for emergency responders

- Sweep up to prevent slipping hazard.
- Prevent further leakage or spillage.

6.2 Environmental precautions

- Do not flush into surface water or sanitary sewer system.
- Prevent any mixture with an acid into the sewer/drain (gas formations).

6.3 Methods and materials for containment and cleaning up

- Sweep up and shovel into suitable containers for disposal.
- Avoid dust formation.
- Keep in properly labeled containers.
- Keep in suitable, closed containers for disposal.
- Treat recovered material as described in the section "Disposal considerations".

- Keep in suitable, closed containers for disposal.
- Pick up and transfer to properly labeled containers.

6.4 Reference to other sections

- no data available

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Minimize dust generation and accumulation.
- Avoid contact with skin and eyes.
- Ensure adequate ventilation.
- Keep away from incompatible products

Hygiene measures

- When using do not eat, drink or smoke.
- Wash hands before breaks and at the end of workday.
- Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions

- Keep in a dry place.
- Store in original container.
- Keep container closed.

- Keep in properly labeled containers.

- Avoid dust formation.
- Refer to protective measures listed in sections 7 and 8.

- Keep away from:
- Incompatible products

Packaging material

Suitable material
- Paper.
- Polyethylene

7.3 Specific end use(s)

- Contact your supplier for additional information

SECTION 8: Exposure controls/personal protection

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance

with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

8.1 Control parameters

Components with workplace occupational exposure limits

Ingredients	Value type	Value	Basis
Particles not otherwise specified (PNOS)			National Institute for Occupational Safety and Health
	Includes all inert or nuisance dusts, whether mineral, inorganic, not listed specifically in 1910.1000., See Appendix D - Substances with No Established RELs		
Particles not otherwise specified (PNOS)	TWA	15 mg/m3	Occupational Safety and Health Administration - Table Z-1 Limits for Air Contaminants
	Form of exposure : total dust All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is the same as the inert or nuisance dust limit of Table Z-3.		
Particles not otherwise specified (PNOS)	TWA	5 mg/m3	Occupational Safety and Health Administration - Table Z-1 Limits for Air Contaminants
	Form of exposure : respirable fraction All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is the same as the inert or nuisance dust limit of Table Z-3.		
Particles not otherwise specified (PNOS)	TWA	10 mg/m3	American Conference of Governmental Industrial Hygienists
	Form of exposure : Inhalable fraction		
Particles not otherwise specified (PNOS)	TWA	3 mg/m3	American Conference of Governmental Industrial Hygienists
	Form of exposure : Respirable fraction		

8.2 Exposure controls

Control measures

Engineering measures
- Ensure adequate ventilation.
- Provide appropriate exhaust ventilation at places where dust is formed.
- Refer to protective measures listed in sections 7 and 8.
- Apply technical measures to comply with the occupational exposure limits.

Individual protection measures

Respiratory protection
- Use only respiratory protection that conforms to international/ national standards.
- Use NIOSH approved respiratory protection.
- Effective dust mask

Hand protection
- Wear suitable gloves.

Eye protection
- Dust proof goggles, if dusty.

Skin and body protection
- None.

Hygiene measures
- When using do not eat, drink or smoke.
- Wash hands before breaks and at the end of workday.
- Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: Physical and chemical properties

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product information phone number in Section 1 for its exact specifications.

9.1 Information on basic physical and chemical properties

Appearance	Form: crystalline, powder Physical state: solid Color: white white
Odor	odorless
Odor Threshold	no data available
Molecular weight	84.02 g/mol
pH	8.6 (ca. 52 g/l)
Melting point/freezing point	Melting point/range: () Decomposition: yes Not applicable
Initial boiling point and boiling range	Boiling point/boiling range: () Thermal decomposition: yes Not applicable
Flash point	Not applicable
Evaporation rate (Butylacetate = 1)	no data available
Flammability (solid, gas)	no data available
Flammability (liquids)	no data available
Flammability / Explosive limit	Lower flammability/explosion limit: Type: Lower explosion limit The product is not flammable. Explosiveness: Not explosive
Autoignition temperature	The product is not flammable.
Vapor pressure	Not applicable

Vapor density	Not applicable
Density	Bulk density: 500 - 1,200 kg/m3
Relative density	no data available
Solubility	Water solubility: 96 g/l (68 °F (20 °C)) Solubility in other solvents: Other : soluble Alcohol : slightly soluble
Partition coefficient: n-octanol/water	Not applicable
Decomposition temperature	> 140 °F (> 60 °C)
Viscosity	Viscosity, dynamic : 1.2 mPa.s
Explosive properties	no data available
Oxidizing properties	Not considered as oxidizing.

9.2 Other information

no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

- no data available

10.2 Chemical stability

- Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

- no data available

10.4 Conditions to avoid

- Extremes of temperature and direct sunlight.
- Exposure to moisture.
- To avoid thermal decomposition, do not overheat.

10.5 Incompatible materials

- Acids

10.6 Hazardous decomposition products

- none

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity	LD50 : > 4,000 mg/kg - Rat
Acute inhalation toxicity	LC50 (dust/mist) > 4.74 mg/l - Rat
Acute dermal toxicity	
Carbonic acid sodium salt (1:1)	no data available
Acute toxicity (other routes of administration)	no data available
Skin corrosion/irritation	Rabbit Mild skin irritation
Serious eye damage/eye irritation	Rabbit Mild eye irritation
Respiratory or skin sensitization	no data available

Mutagenicity

Genotoxicity in vitro	in vitro test Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
Genotoxicity in vivo	no data available
Carcinogenicity	no data available

This product does not contain any ingredient designated as probable or suspected human carcinogens by:

NTP
IARC
OSHA
ACGIH

Toxicity for reproduction and development

Toxicity to reproduction / fertility	no data available
Developmental Toxicity/Teratogenicity	Gavage Test period: 10 Days Teratogenicity NOAEL:330mg/kg Did not show teratogenic effects in animal experiments.

STOT

STOT-single exposure

Carbonic acid sodium salt (1:1)	Routes of exposure: Oral, Inhalation The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria. internal evaluation
STOT-repeated exposure	no observed effect
Aspiration toxicity	no data available
Further information	Health injuries are not known or expected under normal use.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic Compartment

Acute toxicity to fish	LC50 - 96 h : 7,700 mg/l - Oncorhynchus mykiss (rainbow trout) NOEC - 96 h : 2,300 mg/l - Oncorhynchus mykiss (rainbow trout) LC50 - 96 h : 7,100 mg/l - Lepomis macrochirus (Bluegill sunfish) NOEC - 96 h : 5,200 mg/l - Lepomis macrochirus (Bluegill sunfish)
Acute toxicity to daphnia and other aquatic invertebrates.	EC50 - 48 h : 4,100 mg/l - Daphnia magna (Water flea) NOEC - 48 h : 3,100 mg/l - Daphnia magna (Water flea)
Toxicity to aquatic plants	no data available
Toxicity to microorganisms	no data available
Chronic toxicity to fish	no data available

Chronic toxicity to daphnia and other aquatic invertebrates.

Carbonic acid sodium salt (1:1)	NOEC: > 576 mg/l - 21 Days - Daphnia magna (Water flea) semi-static test Analytical monitoring: no Method: OECD Test Guideline 211 Highest concentration tested Published data No adverse chronic effect observed up to and including the threshold of 1 mg / L.

Chronic Toxicity to aquatic plants	no data available

12.2 Persistence and degradability

Abiotic degradation

Stability in water	hydrolyzes Medium, Water, acid/base equilibrium as a function of pH, Degradation products:, carbonic acid/bicarbonate/carbonate
Physical- and photo-chemical elimination	no data available

Biodegradation

Biodegradability	The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water Carbonic acid sodium salt (1:1)	Not applicable, inorganic substance
Bioconcentration factor (BCF)	Not applicable

12.4 Mobility in soil

Adsorption potential (Koc)	Water/soil/sediments Solubility(ies) Water/soil/sediments Mobility
Known distribution to environmental compartments	no data available

12.5 Results of PBT and vPvB assessment	Not applicable

12.6 Other adverse effects

Ecotoxicity assessment

Acute aquatic toxicity Carbonic acid sodium salt (1:1)	Not harmful to aquatic life (LC/LL50, EC/EL50 > 100 mg/L)
Chronic aquatic toxicity Carbonic acid sodium salt (1:1)	No adverse chronic effect observed up to and including the threshold of 1 mg / L.
Remarks	Ecological injuries are not known or expected under normal use.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product Disposal

- Contact waste disposal services.
- If recycling is not practicable, dispose of in compliance with local regulations.
- or
- Dilute with plenty of water.
- Neutralize with acid.
- In accordance with local and national regulations.

Waste Code

- Environmental Protection Agency
- Hazardous Waste – NO

Advice on cleaning and disposal of packaging

- To avoid treatments, as far as possible, use dedicated containers.
- or
- Clean container with water.
- Dispose of rinse water in accordance with local and national regulations.
- The empty and clean containers are to be reused in conformity with regulations.
- Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities.

SECTION 14: Transport information

DOT
not regulated

TDG
not regulated

NOM
not regulated

IMDG
not regulated

IATA
not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SECTION 15: Regulatory information

15.1 Notification status

Inventory Information	Status
United States TSCA Inventory	- Listed on Inventory
New Zealand. Inventory of Chemical Substances	- All components on composite list considered for transfer
Canadian Domestic Substances List (DSL)	- Listed on Inventory
Australia Inventory of Chemical Substances (AICS)	- Listed on Inventory
Japan. CSCL - Inventory of Existing and New Chemical Substances	- Listed on Inventory
Korea. Korean Existing Chemicals Inventory (KECI)	- Listed on Inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	- Listed on Inventory
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	- Listed on Inventory

15.2 Federal Regulations

US. EPA EPCRA SARA Title III

Section 313 Toxic Chemicals (40 CFR 372.65)
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Section 302 Emergency Planning Extremely Hazardous Substance Threshold Planning Quantity (40 CFR 355)
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section 302 Emergency Planning Extremely Hazardous Substance Reportable Quantity (40 CFR 355)
This material does not contain any components with a SARA 302 RQ.

Section 304 Emergency Release Notification Reportable Quantity (40 CFR 355)
This material does not contain any components with a section 304 EHS RQ.

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

This material does not contain any components with a CERCLA RQ.

15.3 State Regulations

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

SECTION 16: Other information

NFPA (National Fire Protection Association) - Classification

Health	1 slight
Flammability	0 minimal
Instability or Reactivity	0 minimal
Special Notices	None

HMIS (Hazardous Materials Identification System (Paint & Coating)) - Classification

Health	1 slight
Flammability	0 minimal
Reactivity	0 minimal
PPE	Determined by User; dependent on local conditions

Further information

- Product evaluated under the US GHS format.

Date Prepared: 06/02/2017

Key or legend to abbreviations and acronyms used in the safety data sheet

- TWA	8-hour, time-weighted average
- ACGIH	American Conference of Governmental Industrial Hygienists
- OSHA	Occupational Safety and Health Administration
- NTP	National Toxicology Program
- IARC	International Agency for Research on Cancer
- NIOSH	National Institute for Occupational Safety and Health

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose, and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.