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

1.1 Product identifier

- Trade name SOLVair® Select 200

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 WHMIS 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

Hazardous Products Regulations (WHMIS 2015)

Eye irritation, Category 2A H319: Causes serious eye irritation.

2.2 Label elements

Hazardous Products Regulations (WHMIS 2015)

Pictogram

Signal Word

- Warning

Hazard Statements

- H319 Causes serious eye irritation.

Precautionary Statements

Prevention

- P264 Wash skin thoroughly after handling.
- P280 Wear eye protection/ face protection.

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.

2.3 Other hazards which do not result in classification

- H402: Harmful to aquatic life.

- Main symptoms
- irritant effects

SECTION 3: Composition/information on ingredients

3.1 Substance

- Not applicable, this product is a mixture.

3.2 Mixture

WHMIS Hazardous Ingredients and Impurities

Chemical name	Identification number CAS-No.	Concentration [% wt/wt or V/V]
Carbonic acid, sodium salt (2:3)	533-96-0	>= 97

SECTION 4: First aid measures

4.1 Description of first-aid measures

In case of inhalation

- Move to fresh air.
- If symptoms persist, call a physician.

In case of skin contact

- Wash off with soap and water.
- If symptoms persist, call a physician.
- Remove and wash contaminated clothing before re-use.

In case of eye contact

- If eye irritation persists, consult a specialist.

- In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

In case of ingestion

- If symptoms persist, call a physician or Poison Control Center immediately.

- If victim is conscious:
- Do NOT induce vomiting.

- If victim is conscious:
- Rinse mouth with water.

- If victim is unconscious:
- Not applicable

4.2 Most important symptoms and effects, both acute and delayed

In case of inhalation

Effects

- May cause nose, throat, and lung irritation.

Repeated or prolonged exposure

- Risk of sore throat, nose bleeds

In case of skin contact

Effects

- Prolonged skin contact may cause skin irritation.

In case of eye contact

Symptoms

- Lachrymation
- Redness

Effects

- Severe eye irritation

In case of ingestion

Effects

- Irritation of the mouth and throat.
- 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

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

- No special precautions required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel

- Avoid dust formation.

Advice for emergency responders

- Sweep up to prevent slipping hazard.

6.2 Environmental precautions

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

6.3 Methods and materials for containment and cleaning up

- Sweep up and shovel into suitable containers for disposal.
- Keep in properly labeled containers.
- Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

- no data available

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Keep away from incompatible products

- Ensure adequate ventilation.

Hygiene measures

- Eye wash bottles or eye wash stations in compliance with applicable standards.
- When using do not eat or drink.
- When using do not 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 in properly labeled containers.
- Keep container closed.
- Keep away from incompatible products

Packaging material

Suitable material
- Paper + PE coating.

7.3 Specific end use(s)

- no data available

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

Consult local authorities for acceptable exposure limits.

Ingredients	Value type	Value	Basis
Carbonic acid, sodium salt (2:3)	TWA	10 mg/m3	Solvay Acceptable Exposure Limit

8.2 Exposure controls

Control measures

Engineering measures
- Ensure adequate ventilation.
- Provide appropriate exhaust ventilation at machinery.

Individual protection measures

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

Hand protection
- Wear suitable gloves.

Eye protection
- Chemical resistant goggles must be worn.

Skin and body protection
- Dust impervious protective suit

Hygiene measures
- Eye wash bottles or eye wash stations in compliance with applicable standards.
- When using do not eat or drink.
- When using do not 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: fine powder Physical state: solid Color: off-white tan
Odor	odorless musty
Odor Threshold	no data available
pH	9.8 (2 g/l)
Melting point/freezing point	no data available
Initial boiling point and boiling range	no data available
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	no data available
Vapor pressure	no data available
Vapor density	no data available
Density	Bulk density: 1,000 kg/m3
Relative density	2.11
Solubility	no data available
Partition coefficient: n-octanol/water	Not applicable
Decomposition temperature	no data available
Viscosity	no data available
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

- Decomposes by reaction with strong acids.
- Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

- no data available

10.4 Conditions to avoid

- none

10.5 Incompatible materials

- Acids
- Finely divided aluminum

10.6 Hazardous decomposition products

- none

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity

Carbonic acid sodium salt (1:2)	LD50 : 2,800 mg/kg - Rat , male and female The product has a low acute toxicity Unpublished reports

Acute inhalation toxicity

Carbonic acid sodium salt (1:2)	no data available

Acute dermal toxicity

Carbonic acid sodium salt (1:2)	LD50 : > 2,000 mg/kg - Rabbit Method: according to a standardized method Not classified as hazardous for acute dermal toxicity according to GHS. No mortality observed at this concentration. Unpublished reports

Acute toxicity (other routes of administration)	no data available

Skin corrosion/irritation

Carbonic acid sodium salt (1:2)	Rabbit Not classified as irritating to skin Method: OECD Test Guideline 404 Unpublished reports

Serious eye damage/eye irritation

Carbonic acid sodium salt (1:2)	Rabbit Irritating to eyes. Method: according to a standardized method Unpublished reports

Respiratory or skin sensitization no data available

Mutagenicity

Genotoxicity in vitro

Carbonic acid sodium salt (1:2)	By analogy Ames test with metabolic activation Product is not considered to be genotoxic Published data Strain: Escherichia coli without metabolic activation negative Product is not considered to be genotoxic Published data

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:
IARC
ACGIH

Toxicity for reproduction and development

Toxicity to reproduction / fertility	no data available

Developmental Toxicity/Teratogenicity

Carbonic acid sodium salt (1:2)	Mouse , female Application Route: Oral NOAEL teratogenicity: >= 580 mg/kg NOAEL maternal: >= 580 mg/kg Method: according to a standardized method no embryotoxic or teratogenic effects have been observed Unpublished reports

STOT

STOT-single exposure

Carbonic acid sodium salt (1:2)	The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria. internal evaluation

STOT-repeated exposure

Carbonic acid sodium salt (1:2)	The substance or mixture is not classified as specific target organ toxicant, repeated exposure according to GHS criteria. internal evaluation

Aspiration toxicity	no data available

SECTION 12: Ecological information

12.1 Toxicity

Aquatic Compartment

Acute toxicity to fish	LC50 - 96 h : 30 - 1,200 mg/l - Fishes, various species Test substance: Sodium carbonate LC50 - 96 h : 7,550 mg/l - Gambusia affinis (Mosquito fish) Test substance: Sodium bicarbonate
Acute toxicity to daphnia and other aquatic invertebrates.	LC50 - 48 h : 115 - 150 mg/l - Crustaceans, Daphnia sp. Test substance: Sodium carbonate LC50 - 48 h : 2,350 mg/l - Daphnia magna (Water flea) Test substance: Sodium bicarbonate
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.	no data available
Chronic Toxicity to aquatic plants	no data available

12.2 Persistence and degradability

Abiotic degradation

Stability in water	Hydrolysis Medium, Water, Degradation products:, carbonic acid/bicarbonate/carbonate, acid/base equilibrium as a function of pH Medium, Soil, Hydrolyzis as a function of pH
Photodegradation	Not applicable Medium Air
Physical- and photo-chemical elimination	no data available

Biodegradation

Biodegradability	aerobic Not applicable anaerobic Not applicable

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water	no data available
Bioconcentration factor (BCF)	Not applicable

12.4 Mobility in soil

Adsorption potential (Koc)	Water considerable solubility and mobility Soil/sediments non-significant adsorption Air Not applicable
Known distribution to environmental compartments	no data available

12.5 Results of PBT and vPvB assessment Not applicable

12.6 Other adverse effects no data available

Remarks alkaline, Ecological injuries are not known or expected under normal use.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product Disposal

- In accordance with local and national regulations.
- For unused and uncontaminated product, the preferred options include sending to a licensed, permitted: recycler, reclaimer.
- or
- Dissolve in water.
- Neutralize with acid.

Advice on cleaning and disposal of packaging

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

SECTION 14: Transport information

TDG
not regulated

DOT
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
EU. European Registration, Evaluation, Authorisation and Restriction of Chemical (REACH)	- If product is purchased from Solvay in Europe it is in compliance with REACH, if not please contact the supplier.

15.2 National Regulations

no data available

SECTION 16: Other information

Revision Date:

03/17/2017

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

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

- SAEL	Solvay Acceptable Exposure Limit
- TWA	Long-term exposure limit (8-hour TWA reference period)
- 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