

SAFEWAY SF RUNWAY DE-ICER

Page 1

Substance key: SXR096769

Revision Date: 08/13/2018

Version : 3 - 6 / USA

Date of printing :08/13/2018

SECTION 1. IDENTIFICATION

Identification of the company:

Clariant Corporation
4000 Monroe Road
Charlotte, NC, 28205
Telephone No.: +1 704 331 7000

Information of the substance/preparation:

Product Stewardship, +1-704-331-7710

Emergency tel. number: +1 800-424-9300 CHEMTREC**Trade name:** SAFEWAY SF RUNWAY DE-ICER**Material number:** 107966**Synonyms:** Product Has No Synonyms**Primary product use:** De-icing.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Disodium metasilicate	6834-92-0	1 - 3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

SECTION 4. FIRST AID MEASURES

- General advice : Remove/Take off immediately all contaminated clothing.
- If inhaled : Move the victim to fresh air.
Give oxygen or artificial respiration if needed.
Get immediate medical advice/ attention.
Never give anything by mouth to an unconscious person.
- In case of skin contact : Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids,

Substance key: SXR096769

Revision Date: 08/13/2018

Version : 3 - 6 / USA

Date of printing :08/13/2018

for at least 15 minutes.

Get medical attention immediately if irritation develops and persists.

If swallowed : IF SWALLOWED: Immediately call a POISON CENTER/doctor.

Most important symptoms and effects, both acute and delayed : The possible symptoms known are those derived from the labelling (see section 2). No additional symptoms are known.

Notes to physician : None known.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water spray jet
Foam

Unsuitable extinguishing media : Dry powder
Carbon dioxide (CO₂)
High volume water jet

Specific hazards during firefighting : In case of fires, hazardous combustion gases are formed:
Carbon monoxide (CO)
Carbon dioxide (CO₂)

Further information : Exercise caution when fighting any chemical fire. Use NIOSH approved self-contained breathing apparatus and full protective clothing.

Special protective equipment for firefighters : Self-contained breathing apparatus

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Avoid dust formation.
Wear suitable protective equipment.
Wear suitable protective equipment. Collect for disposal.
Avoid discharge into sewers, on ground or into any body of water.

Environmental precautions : Do not allow to enter drains or waterways

Methods and materials for containment and cleaning up : Take up mechanically

Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

SAFEWAY SF RUNWAY DE-ICER

Page 3

Substance key: SXR096769

Revision Date: 08/13/2018

Version : 3 - 6 / USA

Date of printing :08/13/2018

- Advice on protection against fire and explosion : not capable of dust explosion
- Advice on safe handling : Avoid dust formation.
Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.
Take measures to prevent the build up of electrostatic charge.
Store in a dry place.
- Technical measures/Precautions : Store in original container.
Keep container closed.
- Materials to avoid : Do not store near acids.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

Hazardous components without workplace control parameters

Components	CAS-No.
Disodium metasilicate	6834-92-0

- Engineering measures** : Local ventilation recommended - mechanical ventilation may be used.

Personal protective equipment

- Respiratory protection : If airborne concentrations pose a health hazard, become irritating or exceed recommended limits, use a NIOSH approved respirator in accordance with OSHA respiratory protection requirements under 29 CFR 1910.134
- Hand protection
Remarks : Butyl Rubber, PVC Or Neoprene.
- Eye protection : Safety glasses
- Skin and body protection : Protective clothing to minimize skin contact should be worn. Chemically resistant safety shoes. Wash contaminated clothing with soap and water and dry before reuse. Safety showers and eyewash stations should be provided in all areas where this material is handled.
- Protective measures : Do not breathe dust.
Avoid contact with skin and eyes.
- Hygiene measures : When using do not eat or drink.
Wash hands before breaks and at the end of workday.

Substance key: SXR096769

Revision Date: 08/13/2018

Version : 3 - 6 / USA

Date of printing :08/13/2018

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	solid
Colour	:	white
Odour	:	characteristic
Odour Threshold	:	not tested.
pH	:	approx. 11.5 (20 °C) Concentration: 50 g/l Method: DIN 19268
Melting point	:	approx. 260 °C
Boiling point	:	Not applicable
Flash point	:	Not applicable
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	not determined
Self-ignition	:	> 310 °C Method: VDI 2263 (Grewer)
Burning number	:	2 Short flaring up without spreading
Upper explosion limit / upper flammability limit	:	Not applicable
Lower explosion limit / Lower flammability limit	:	Not applicable
Vapour pressure	:	not tested.
Relative vapour density	:	Not applicable
Density	:	not tested.
Bulk density	:	941 kg/m ³ Method: DIN 53466
Solubility(ies)		
Water solubility	:	approx. 690 g/l (22 °C)
Solubility in other solvents	:	not tested. Solvent: fat
Partition coefficient: n-octanol/water	:	Not applicable

SAFEWAY SF RUNWAY DE-ICER

Page 5

Substance key: SXR096769

Revision Date: 08/13/2018

Version : 3 - 6 / USA

Date of printing :08/13/2018

Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	> 250 °C
Viscosity		
Viscosity, dynamic	:	Not applicable
Viscosity, kinematic	:	not tested.
Explosive properties	:	no data available
Oxidizing properties	:	Not applicable
Metal corrosion rate	:	< 6.25 mm/a
Minimum ignition energy	:	not tested.
Particle size	:	not tested.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Reactions with acids. Stable
Conditions to avoid	:	Acidic materials.
Incompatible materials	:	not known
Hazardous decomposition products	:	When handled and stored appropriately, no dangerous decomposition products are known

SECTION 11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Skin contact

Eye contact

Acute toxicity**Product:**

Acute oral toxicity	:	LD50 (Mouse): > 2,000 mg/kg Remarks: Information refers to the main component.
Acute inhalation toxicity	:	Remarks: not tested.
Acute dermal toxicity	:	Remarks: not tested.

Substance key: SXR096769

Revision Date: 08/13/2018

Version : 3 - 6 / USA

Date of printing :08/13/2018

Components:**Disodium metasilicate:**

- Acute oral toxicity : LD50 (Rat, male and female): 995 - 1,530 mg/kg
Method: Other
GLP: no
- Acute inhalation toxicity : LC50 (Rat, male and female): > 2.06 mg/l
Exposure time: 4 h
Method: OPPTS 870.1300
GLP: yes
Remarks: By analogy with a product of similar composition
- Acute dermal toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
Method: OPPTS 870.1200
GLP: yes
Remarks: By analogy with a product of similar composition

Skin corrosion/irritation**Product:**

Species: Rabbit
Assessment: No skin irritation
Method: OECD Test Guideline 404
Result: No skin irritation

Components:**Disodium metasilicate:**

Species: Rabbit
Exposure time: 4 h
Method: OECD Test Guideline 404
Result: Skin irritation
GLP: yes

Serious eye damage/eye irritation**Product:**

Species: rabbit eye
Result: No eye irritation
Assessment: No eye irritation
Method: OECD Test Guideline 405

Components:**Disodium metasilicate:**

Result: Risk of serious damage to eyes.
Remarks: evaluation based on the high pH-value

Substance key: SXR096769

Revision Date: 08/13/2018

Version : 3 - 6 / USA

Date of printing :08/13/2018

Respiratory or skin sensitisation**Product:**

Remarks: not tested.

Components:**Disodium metasilicate:**

Test Type: Mouse local lymphnode assay

Exposure routes: Dermal

Species: Mouse

Method: OECD Test Guideline 429

Result: non-sensitizing

GLP: No information available.

Germ cell mutagenicity**Product:**

Germ cell mutagenicity - Assessment : No information available.

Components:**Disodium metasilicate:**

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Concentration: 10 - 5000
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

Test Type: Chromosome aberration test in vitro
Test system: V79 cells (embryonic lung fibroblasts) of the Chinese hamster
Concentration: 19,5 - 156,3 µg/ml
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: yes
Remarks: By analogy with a product of similar composition

Test Type: In vitro gene mutation study in mammalian cells
Test system: V79 cells (embryonic lung fibroblasts) of the Chinese hamster
Concentration: 28,1 - 1800 µg/ml
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes
Remarks: By analogy with a product of similar composition

Genotoxicity in vivo : Test Type: Chromosome Aberration Test

Substance key: SXR096769

Revision Date: 08/13/2018

Version : 3 - 6 / USA

Date of printing :08/13/2018

Species: Mouse (male)
Cell type: Bone marrow
Application Route: oral (feed)
Exposure time: 24 h
Dose: 740 - 1340 mg/kg
Method: OECD Test Guideline 475
Result: negative
GLP: no

Germ cell mutagenicity - Assessment : It is concluded that the product is not mutagenic based on evaluation of several mutagenicity tests.

Carcinogenicity**Product:**

Carcinogenicity - Assessment : No information available.

Components:**Disodium metasilicate:**

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

IARC Not listed

OSHA Not listed

NTP Not listed

Reproductive toxicity**Product:**

Reproductive toxicity - Assessment : No information available.

No information available.

Components:**Disodium metasilicate:**

Effects on fertility : Species: Rat, male and female
Strain: Sprague-Dawley
Application Route: Drinking water
Dose: 79 - 159 mg/kg
General Toxicity - Parent: NOAEL: > 159 mg/kg body weight
Method: Other
GLP: no
Remarks: By analogy with a product of similar composition

Effects on foetal development : Species: Mouse, male and female
Application Route: oral (gavage)

SAFEWAY SF RUNWAY DE-ICER

Page 9

Substance key: SXR096769

Revision Date: 08/13/2018

Version : 3 - 6 / USA

Date of printing :08/13/2018

Dose: 12.5 - 50 - 200 mg/kg
General Toxicity Maternal: NOAEL: 12.5 mg/kg body weight
Teratogenicity: NOAEL: > 200 mg/kg body weight
Method: Other
GLP: no

Reproductive toxicity - Assessment : No reproductive toxicity to be expected.
No teratogenic effects to be expected.

STOT - single exposure**Product:**

Remarks: not tested.

Components:**Disodium metasilicate:**

Assessment: May cause respiratory irritation.

STOT - repeated exposure**Product:**

Remarks: not tested.

Components:**Disodium metasilicate:**

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity**Product:**

Remarks: not tested.

Components:**Disodium metasilicate:**

Species: Rat, male and female
NOAEL: > 227 - 237 mg/kg
Application Route: Drinking water
Exposure time: 3 m
Number of exposures: daily
Dose: 200 - 600 - 1800 ppm
Group: yes
Method: OECD Test Guideline 408
GLP: no

Application Route: Inhalation
Remarks: not tested.

Application Route: Skin contact

Substance key: SXR096769

Revision Date: 08/13/2018

Version : 3 - 6 / USA

Date of printing :08/13/2018

Remarks: not tested.

Aspiration toxicity**Product:**

no data available

Components:**Disodium metasilicate:**

No aspiration toxicity classification

Experience with human exposure**Product:**

General Information : The possible symptoms known are those derived from the labelling (see section 2).

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Product:**

- Toxicity to fish : LC50 (Danio rerio (zebra fish)): 8,226 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : (Daphnia magna (Water flea)): > 1,000 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
- Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): > 1,000 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
- Toxicity to microorganisms : EC50 (Pseudomonas putida): 6,165 mg/l
Method: ISO/DIS 10712.2 (Ref 3)

Components:**Disodium metasilicate:**

- Toxicity to fish : LC50 (Gambusia affinis (Mosquito fish)): 2,320 mg/l
Exposure time: 96 h
Test Type: static test
Analytical monitoring: no data available
Method: Other
GLP: no
- LC50 (Brachydanio rerio (zebrafish)): 210 mg/l
Exposure time: 96 h

Substance key: SXR096769

Revision Date: 08/13/2018

Version : 3 - 6 / USA

Date of printing :08/13/2018

Test Type: semi-static test

Analytical monitoring: no

Method: ISO 7346/1

GLP: no

- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1,700 mg/l
Exposure time: 48 h
Test Type: static test
Analytical monitoring: no data available
Method: OECD Test Guideline 202
GLP: yes
Remarks: By analogy with a product of similar composition
- Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): > 345.4 mg/l
End point: Growth rate
Exposure time: 72 h
Analytical monitoring: no data available
Method: DIN 38412
GLP: yes
Remarks: By analogy with a product of similar composition
- Toxicity to fish (Chronic toxicity) : Remarks: not reasonable
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: not reasonable
- Toxicity to microorganisms : EC50 (activated sludge, domestic): > 100 mg/l
Exposure time: 3 h
Test Type: aquatic
Analytical monitoring: no
Method: OECD Test Guideline 209
GLP: yes
- Toxicity to soil dwelling organisms : Remarks: Not applicable
- Plant toxicity : Remarks: Not applicable
- Sediment toxicity : Remarks: Not applicable
- Toxicity to terrestrial organisms : Remarks: Not applicable

Persistence and degradability**Product:**

- Biodegradability : Biodegradation: 93 %
Exposure time: 28 d
Method: OECD Test Guideline 301B
Remarks: Readily biodegradable, according to appropriate

Substance key: SXR096769

Revision Date: 08/13/2018

Version : 3 - 6 / USA

Date of printing :08/13/2018

OECD test.

By analogy with a product of similar composition

Biochemical Oxygen Demand (BOD) : 0.016 kg/kg
Method: DIN 38409-H51

Chemical Oxygen Demand (COD) : 0.240 kg/kg
Method: DIN 38409-H-41

Components:**Disodium metasilicate:**

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

Physico-chemical removability : Remarks: Inorganic product, cannot be eliminated from the water by biological purification processes.

Bioaccumulative potential**Product:**

Bioaccumulation : Remarks: not tested.

Components:**Disodium metasilicate:**

Bioaccumulation : Method: Other
GLP: no
Remarks: Does not accumulate in organisms.

Mobility in soil**Product:**

Distribution among environmental compartments : Remarks: not tested.

Components:**Disodium metasilicate:**

Distribution among environmental compartments : Remarks: Not applicable

Other adverse effects**Product:**

Environmental fate and pathways : Remarks: no data available

Additional ecological information : no data available

Substance key: SXR096769

Revision Date: 08/13/2018

Version : 3 - 6 / USA

Date of printing :08/13/2018

Components:**Disodium metasilicate:**

Environmental fate and pathways : not available

Results of PBT and vPvB assessment : Remarks: Not applicable

Additional ecological information : Do not allow to enter ground water, waterways or waste water.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**RCRA - Resource Conservation and Recovery Authorization Act Waste Code : No -- Not as sold.
: none

Waste from residues : Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities.

Contaminated packaging : Packaging that cannot be cleaned should be disposed of as product waste

SECTION 14. TRANSPORT INFORMATION

DOT : not restricted

IATA : not restricted

IMDG : not restricted

SECTION 15. REGULATORY INFORMATION**EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

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

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards

Substance key: SXR096769

Revision Date: 08/13/2018

Version : 3 - 6 / USA

Date of printing :08/13/2018

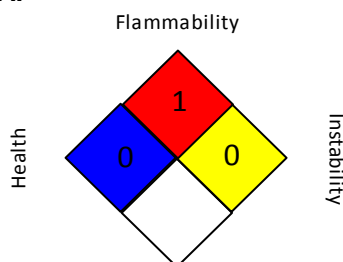
SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Water Act

Contains no known priority pollutants at concentrations greater than 0.1%.

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory, All components are compliant with the TSCA Inventory Notification (Active) rule.

SECTION 16. OTHER INFORMATION**Further information****NFPA:****Full text of other abbreviations**

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise

Substance key: SXR096769

Revision Date: 08/13/2018

Version : 3 - 6 / USA

Date of printing :08/13/2018

Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Observe national and local legal requirements

Revision Date : 08/13/2018

This information corresponds to the present state of our knowledge and is intended as a general description of our products and their possible applications. Clariant makes no warranties, express or implied, as to the information's accuracy, adequacy, sufficiency or freedom from defect and assumes no liability in connection with any use of this information. Any user of this product is responsible for determining the suitability of Clariant's products for its particular application. NO EXPRESS OR IMPLIED WARRANTY IS MADE OF THE MERCHANTABILITY, SUITABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE OF ANY PRODUCT OR SERVICE. Nothing included in this information waives any of Clariant's General Terms and Conditions of Sale, which control unless it agrees otherwise in writing. Any existing intellectual/industrial property rights must be observed. Due to possible changes in our products and applicable national and international regulations and laws, the status of our products could change. Material Safety Data Sheets providing safety precautions, that should be observed when handling or storing Clariant products, are available upon request and are provided in compliance with applicable law. You should obtain and review the applicable Material Safety Data Sheet information before handling any of these products. For additional information, please contact Clariant.

US / EN