

Safety Data Sheet

ICE CLEAN

SDS Revision Date:

12/12/2022



1. Identification

1.1. Product identifier

Product Identity

ICE CLEAN

Alternate Names

90-365, Blended Formula, Ice Clean Powdered Ice Machine Cleaner- 4 oz

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

Intended use

It is used to remove scale, safe on nickel ice machine component. It's a powdered ice machine descaler.

Application Method

Read all precautions and instructions carefully before and after use.

1.3. Details of the supplier of the safety data sheet

Company Name

ComStar International Inc.
20-47 128th Street,
College Point, NY 11356

Telephone No.

718-445-7900
800-328-0142
Fax: 718-353-5998

Emergency 24 HR response No: 1-800-424-9300 & 703-527-3887 CHEMTREC

Note: The CHEMTREC phone number is only for emergencies involving spills, leaks, fire, exposure or accident. Please direct all other inquiries to our customer service phone number.

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Skin Corr.1C; H314 Causes severe skin burns and eye damage.

Serious eye damage/eye irritation. 1; H318 Causes serious eye damage

Hazardous to the aquatic environment - Acute Hazard. 3; H402 Harmful to aquatic life

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



Danger

Signal Word

[Hazard Statements]:

H314 - Causes severe skin burns and eye damage

H318 Causes serious eye damage

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H402 - Harmful to aquatic life

[Prevention]:

P260 Do not breathe mist / vapors / spray.

P264 Wash exposed skin thoroughly after handling.

P273 - Avoid release to the environment. P280

P280 - Wear protective gloves, eye protection, protective clothing.

P301+P330+P331 – If swallowed Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 – If on skin (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 – If inhaled: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 – If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a poison center or doctor/physician.

P363 - Wash contaminated clothing before reuse.

P405 - Store locked up.

P501 - Dispose of contents/container to comply with local, state and federal regulations

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification: None.

2.4. Unknown acute toxicity (GHS US)

Not applicable

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
SULFAMIC ACID CAS #: 5329-14-6	>80	Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Acute 2, H401	
SURFACTANT PACKAGE CAS#: None	<20	Not Classified	
CITRIC ACID CAS#: 77-92-9	<5	Not Classified	

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

*The full texts of the phrases are shown in Section 16.

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4. First aid measures

4.1. Description of first aid measures

General	Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.
Inhalation	Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service. Doctor: administration of corticoid spray.
Eyes	Rinse immediately with plenty of water. Do not apply (chemical) neutralizing agents without medical advice. Remove contact lenses, if present and easy to do. Continue rinsing. Take victim to an ophthalmologist if irritation persists.
Skin	Wash immediately with lots of water. Do not apply (chemical) neutralizing agents without medical advice. Take victim to a doctor if irritation persists.
Ingestion	Rinse mouth with water. Do not apply (chemical) neutralizing agents without medical advice. Do not induce vomiting. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Take the container/vomit to the doctor/hospital.

4.2. Most important symptoms and effects, both acute and delayed

Overview	Potential Adverse human health effects and symptoms: Practically non-toxic if swallowed (LD50 oral 2000/5000 mg/kg). Causes skin irritation. Practically non-toxic in contact with skin (LD50 skin > 2000 mg/kg). Causes serious eye irritation. Symptoms/effects after inhalation: Dry/sore throat. Coughing. On continuous exposure/contact: Respiratory difficulties. Corrosion of the upper respiratory tract. Following symptoms may appear later: Risk of lung edema. Symptoms/effects after skin contact: Tingling/irritation of the skin. Red skin. On continuous exposure/contact: Caustic burns/corrosion of the skin. Symptoms/effects after eye contact: Redness of the eye tissue. Visual disturbances. Irritation of the eye tissue. On continuous exposure/contact: Corrosion of the eye tissue. Symptoms/effects after ingestion: Nausea. Vomiting. Abdominal pain. Diarrhea. Gastrointestinal complaints. Chronic symptoms: No effects known.
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4.3. Immediate medical attention and special

No additional information available

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treatment, if necessary.

5. Fire-fighting measures

5.1. Extinguishing media

Adapt extinguishing media to the environment for surrounding fires.

5.2. Special hazards arising from the substance or mixture

Fire hazard: Direct fire hazard. Non-combustible. Indirect Fire hazard. Reactions involving a fire hazard: see "Reactivity Hazard".

Explosion hazard: Direct explosion hazard. No direct explosion hazard. Indirect explosion hazard Reactions with explosion hazards: see "Reactivity Hazard".

Hazardous decomposition products in case of fire: On burning: release of toxic and corrosive gases/vapours (nitrous vapours, sulphur oxides).

5.3. Advice for fire-fighters

Precautionary measures fire:

Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighborhood close doors and windows.

Firefighting instructions:

Cool tanks/drums with water spray/remove them into safety. Dilute toxic gases with water spray. Take account of toxic/corrosive precipitation water. Take account of environmentally hazardous firefighting water. Use water moderately and if possible, collect or contain it.

Protection during firefighting: Heat/fire exposure: compressed air/oxygen apparatus.

ERG Guide No. ---137

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Protective equipment:

Gloves. Face-shield. Protective clothing. Dust cloud production: compressed air/oxygen apparatus. Dust cloud production: dust-tight suit.

Emergency procedures:

Mark the danger area. Prevent dust cloud formation. No naked flames. Wash contaminated clothes. In case of hazardous reactions: keep upwind. In case of reactivity hazard: consider evacuation.

Measures in case of dust release:

In case of dust production: keep upwind. Dust production: have neighborhood close doors and windows.

6.1.2. For emergency responders

Protective equipment:

Equip cleanup crew with proper protection. Do not breathe dust.

Emergency procedures:

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Stop release. Ventilate area.

6.2. Environmental precautions

Prevent soil and water pollution. Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

For containment:

Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Dam up the solid spill. Hazardous reaction: measure explosive gas-air mixture. Reaction: dilute combustible gas/vapour with water curtain. Knock down/dilute dust cloud with water spray.

Methods for cleaning up:

Prevent dust cloud formation. Scoop solid spill into closing containers. Carefully collect the spill/leftovers. Spill must not return in its original container. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections

No additional information available

7. Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

Avoid raising dust. Keep away from naked flames/heat. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Keep container tightly closed.

Hygiene measures

Observe normal hygiene standards.

7.2. Conditions for safe storage, including any incompatibilities

Incompatible products: Strong bases. Strong oxidizers. Strong reducing agents.

Heat-ignition: Keep substance away from heat: heat sources.

Prohibitions on mixed storage: Keep substance away from: oxidizing agents. strong acids. (strong) bases. halogens. water/moisture.

Storage area: Store in a dry area. Meet the legal requirements.

Special rules on packaging: Special requirement: closing. watertight. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packaging in solid containers.

Packaging materials: Suitable material: cardboard. plastics.

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

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CAS No.	Ingredient	Source	Value
5329-14-6	SULFAMIC ACID	OSHA	2 mg/m ³
		ACGIH	2 mg/m ³
		NIOSH	No Established Limit
		Supplier	No Established Limit
None	SURFACTANT PACKAGE	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
77-92-9	CITRIC ACID	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value
5329-14-6	SULFAMIC ACID	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
None	SURFACTANT PACKAGE	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
77-92-9	CITRIC ACID	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

8.2. Appropriate engineering controls

Appropriate engineering controls: Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

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Chemical resistant apron. Gloves. Protective clothing. Safety glasses. Dust/aerosol mask with filter type P2.

Materials for protective clothing:

GIVE GOOD RESISTANCE: neoprene. PVC. nitrile rubber

Hand protection: Protective gloves against chemicals (EN 374)

Eye protection: Face shield. In case of dust production: protective goggles

Skin and body protection: Protective clothing. In case of dust production: head/neck protection. In case of dust production: dustproof clothing

Respiratory protection: Dust production: dust mask with filter type P2

9. Physical and chemical properties

Appearance	Crystalline solid. Crystalline powder.
Odor	Odorless
Odor threshold	Not Measured
pH	1.2 (1%)
Melting point / freezing point	205 °C (1013 hPa)
Initial boiling point and boiling range	No data available
Flash Point	Not applicable
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: 135C(275F): NA Upper Explosive Limit: 199C(390F): NA
Vapor pressure (Pa)	0.008 hPa (20 °C)
Vapor Density @ 20°C	Not applicable
Relative density	2.15 (20 °C)
Specific Gravity	2120 kg/m ³
Molecular mass	97.1 g/mol
Solubility in Water	Decomposes on exposure to water. Water: 18.1 g/100ml (20 °C, EU Method A.6: Water solubility) 0.1 (Experimental value, EPA OPPTS 830.7550: Partition Coefficient (n-octanol/water), Shake Flask Method, 20 °C)
Log Pow	
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	No data available
Decomposition temperature	> 205 °C (1013 hPa)
Viscosity (cSt)	Not Measured
Volatiles (% by weight)	NA

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Octanol/Water Partition Coefficient

NA

9.2. Other information

VOC content: Not applicable (inorganic)

Other properties: Substance has acid reaction.

10. Stability and reactivity

10.1. Reactivity

Reacts violently with (strong) oxidizers. Reacts exothermically with (some) bases. Decomposes slowly on exposure to water (moisture): release of corrosive products. This reaction is accelerated on exposure to temperature rise.

10.2. Chemical stability

Unstable on exposure to moisture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Incompatible materials.

10.5. Incompatible materials

Strong bases. Strong oxidizers. Strong reducing agents.

10.6. Hazardous decomposition products

Sulfur compounds.

11. Toxicological information

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
SULFAMIC ACID (5329-14-6)	2065 mg/kg	> 2000 mg/kg	No data available	No data available	No data available
SURFACTANT PACKAGE(None)	No data available	No data available	No data available	No data available	No data available
CITRIC ACID (77-92-9)	No data available	No data available	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable

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Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	1C	Causes severe skin burns and eye damage.
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

Viscosity, kinematic: No data available

Likely routes of exposure: Skin and eye contact. Inhalation.

Potential Adverse human health effects and symptoms: Practically non-toxic if swallowed (LD50 oral 2000/5000 mg/kg). Causes skin irritation. Practically non-toxic in contact with skin (LD50 skin > 2000 mg/kg). Causes serious eye irritation.

Symptoms/effects after inhalation: Dry/sore throat. Coughing. On continuous exposure/contact: Respiratory difficulties. Corrosion of the upper respiratory tract. Following symptoms may appear later: Risk of lung edema.

Symptoms/effects after skin contact: Tingling/irritation of the skin. Red skin. On continuous exposure/contact: Caustic burns/corrosion of the skin.

Symptoms/effects after eye contact: Redness of the eye tissue. Visual disturbances. Irritation of the eye tissue. On continuous exposure/contact: Corrosion of the eye tissue.

Symptoms/effects after ingestion: Nausea. Vomiting. Abdominal pain. Diarrhea. Gastrointestinal complaints.

Chronic symptoms: No effects known.

12. Ecological information

12.1. Toxicity

Ecology - air: Not included in the list of substances which may contribute to the greenhouse effect (IPCC). Not included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014). Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).

Ecology - water: Harmful

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Sulfamic Acid, ACS (5329-14-6)

LC50 fish 1

70.3 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Static system, Fresh water, Experimental value)

EC50 Daphnia 1

71.6 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semistatic system, Fresh water, Experimental value, GLP)

ErC50 (algae) 48 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)

12.2. Persistence and degradability

Persistence and degradability Biodegradability: not applicable.

Chemical oxygen demand (COD) Not applicable

ThOD Not applicable

BOD (% of ThOD) Not applicable

12.3. Bioaccumulative potential

Log Pow 0.1 (Experimental value, EPA OPPTS 830.7550: Partition Coefficient (n-octanol/water), Shake Flask Method, 20 °C)

Bioaccumulative potential Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

Ecology - soil No (test)data on mobility of the substance available. Toxic to flora

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle/reuse. Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber with energy recovery. Remove for physicochemical/biological treatment.

Additional information

Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

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14. Transport information

NOTE: Package sizes less than 2.2 pounds meet DOT's Limited Quantity Classification for labeling

In accordance with DOT

Transport document description: UN2967 Sulfamic acid, 8, III

UN-No.(DOT): UN2967

Proper Shipping Name (DOT): Sulfamic acid

Transport hazard class(es) (DOT): 8 - Class 8 - Corrosive material 49 CFR 173.136

Packing group (DOT): III - Minor Danger

Hazard labels (DOT) 8 - Corrosive



DOT Packaging Non Bulk (49 CFR 173.xxx): 213

DOT Packaging Bulk (49 CFR 173.xxx): 240

DOT Special Provisions (49 CFR 172.102) : IB8 - Authorized IBCs: Metal (11A, 11B, 11N, 21A, 21B, 21N, 31A, 31B and 31N); Rigid plastics (11H1, 11H2, 21H1, 21H2, 31H1 and 31H2); Composite (11HZ1, 11HZ2, 21HZ1, 21HZ2, 31HZ1 and 31HZ2); Fiberboard (11G); Wooden (11C, 11D and 11F); Flexible (13H1, 13H2, 13H3, 13H4, 13H5, 13L1, 13L2, 13L3, 13L4, 13M1 or 13M2). IP3 - Flexible IBCs must be sift-proof and water-resistant or must be fitted with a sift-proof and water-resistant liner. T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2) TP33 - The portable tank instruction assigned for this substance applies for granular and powdered solids and for solids which are filled and discharged at temperatures above their melting point which are cooled and transported as a solid mass. Solid substances transported or offered for transport above their melting point are authorized for transportation in portable tanks conforming to the provisions of portable tank instruction T4 for solid substances of packing group III or T7 for solid substances of packing group II, unless a tank with more stringent requirements for minimum shell thickness, maximum allowable working pressure, pressure-relief devices or bottom outlets are assigned in which case the more stringent tank instruction and special provisions shall apply. Filling limits must be in accordance with portable tank special provision TP3. Solids meeting the definition of an elevated temperature material must be transported in accordance with the applicable requirements of this subchapter.

DOT Packaging Exceptions (49 CFR 173.xxx): 154

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27): 25 kg

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75): 100 kg

DOT Vessel Stowage Location: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

Other information: No supplementary information available

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15. Regulatory information

Listed on the United States TSCA (Toxic Substances Control Act) inventory
SARA Section 311/312 Hazard Classes Health hazard - Skin corrosion or Irritation Health
hazard - Serious eye damage or eye irritation

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

CANADA No additional information available
EU-Regulations No additional information available
National regulations No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm.

16. Other information

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 07/22/2020

Full text of H-phrases: see section 16:

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage

H402 Harmful to aquatic life

NFPA health hazard: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity: 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.

Hazard Rating Health: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability: 0 Minimal Hazard - Materials that will not burn

Physical: 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

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Personal protection: F

F - Safety glasses, Gloves, Synthetic apron, Dust respirator

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The opinions expressed are those of qualified experts within ComStar International Inc. We believe that the information contained is current as of the date of the Safety Data Sheet. Since the use of this information and of these opinions and the conditions of the use of the product are not within the control of ComStar International Inc., it is the user's obligation to determine the conditions of safe use of the product.

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