



SAFETY DATA SHEET

FLUSH

SDS REVISIONS: ALL SECTIONS DATE OF ISSUE: 11/30/2018 SUPERSEDES: 09/14/2015

P260 - Do not breathe dust/fume/gas/mist/vapors/spray
 P280 - Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 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 victim to fresh air and keep at rest in a position 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
 P312 - Call a POISON CENTER or doctor/physician if you feel unwell
 P330 - Rinse mouth
 P331 - Do NOT induce vomiting
 P363 - Wash contaminated clothing before reuse

Precautionary Statements - Storage

P405 - Store locked up

Precautionary Statements - Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical Name	CAS No	Weight-%	GHS Classification	Trade Secret
Ammonia	7664-41-7	10 - 30	Acute Tox. 3 (H331) Skin Corr. 1B (H314) Aquatic Acute 1 (H400) Flam. Gas 2 (H221) Press. Gas	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.
 OSHA Hazard Communication 29 CFR 1910.1200



SAFETY DATA SHEET

SDS REVISIONS: ALL SECTIONS DATE OF ISSUE: 11/30/2018

FLUSH

SUPERSEDES: 09/14/2015

4. FIRST AID MEASURES

Description of first aid measures

General advice	Get medical attention if symptoms occur.
Eye contact	Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Skin contact	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Inhalation	Remove to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.
Ingestion	Call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
Self-protection of the first aider	Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Treatment: Treat symptomatically. Symptoms may be delayed. For a medical emergency involving this product call: 1-800-561-8273. Take container, label or product name with you when seeking medical attention.

Note to physicians No specific antidote. Treat symptomatically.

Antidotes No data available

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing agent suitable for type of surrounding fire, Use CO₂, dry chemical, or foam

Specific hazards arising from the chemical

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective gear should be worn in fighting large fires involving chemicals. Use water spray to keep fire exposed containers cool. Keep people away. Isolate fire and deny unnecessary entry.



SAFETY DATA SHEET

SDS REVISIONS: ALL SECTIONS DATE OF ISSUE: 11/30/2018

FLUSH

SUPERSEDES: 09/14/2015

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

Environmental precautions

Environmental precautions Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Use personal protective equipment as required. Dam up. Cover liquid spill with sand, earth or other non-combustible absorbent material. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation, especially in confined areas. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Incompatible materials Incompatible with strong acids and bases. Incompatible with oxidizing agents.



SAFETY DATA SHEET

SDS REVISIONS: ALL SECTIONS DATE OF ISSUE: 11/30/2018

FLUSH

SUPERSEDES: 09/14/2015

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Appropriate engineering controls

Engineering Controls Minimize exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles. Face protection shield.

Skin and body protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection Dependent on job function. If vapors or dusts exceed acceptable levels, wear a MSHA/NIOSH approved air-purifying respirator with any cartridges/filters approved for pesticides. If respirators are used, a program should be in place to assure compliance with 29 CFR 1910.134, the OSHA Respiratory Protection Standard. Wear a supplied air respirator if exposure concentrations are unknown.

General Hygiene Considerations When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Take off all contaminated clothing and wash it before reuse. Wear suitable gloves and eye/face protection.



SAFETY DATA SHEET

FLUSH

SDS REVISIONS: ALL SECTIONS DATE OF ISSUE: 11/30/2018

SUPERSEDES: 09/14/2015

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Aqueous solution
Color	Yellow
Odor	Ammonia
Odor threshold	No data available

<u>Property</u>	<u>Values (Remarks - Method)</u>
pH	5.0 - 7.0 (1% solution)
Melting point / freezing point	No data available
Boiling point	No data available
Flash point	> 100 °C / > 212 °F ASTM D 93
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Flammability Limit in Air	
Upper flammability limit:	No data available
Lower flammability limit:	No data available
Vapor pressure	No data available
Vapor density	No data available
Specific Gravity	0.985 - 1.01 g/ml
Water solubility	Dispersible
Solubility in other solvents	No data available
Partition coefficient	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Kinematic viscosity	No data available
Dynamic viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

Other Information

VOC Content (%)	No data available
Density	0.985 - 1.01kg/L

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.



SAFETY DATA SHEET

FLUSH

SDS REVISIONS: ALL SECTIONS DATE OF ISSUE: 11/30/2018

SUPERSEDES: 09/14/2015

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Exposure to air or moisture over prolonged periods.

Incompatible materials

Incompatible with strong acids and bases. Incompatible with oxidizing agents.

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

11. TOXICOLOGICAL INFORMATION

Acute toxicity of the formulated product:

Chemical Name	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
Ammonia	= 350 mg/kg (Rat)		= 2000 ppm (Rat) 4 h

Chemical Name	Skin corrosion/irritation	Eye damage/irritation	Respiratory sensitization	Skin sensitization
Ammonia 7664-41-7	Category 1			

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Chronic toxicity	Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Avoid repeated exposure. Possible risk of irreversible effects.
Target Organ Effects	Eye damage/irritation, Respiratory system, Skin.
Aspiration hazard	No information available.

Information on likely routes of exposure

Product Information	No data available
Inhalation	No data available.
Eye contact	No data available.
Skin contact	No data available.
Ingestion	No data available.



SAFETY DATA SHEET

SDS REVISIONS: ALL SECTIONS DATE OF ISSUE: 11/30/2018

FLUSH

SUPERSEDES: 09/14/2015

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Ammonia 7664-41-7	-	LC50 0.44 mg/L 96 h Cyprinus carpio LC50 0.26 - 4.6 mg/L 96 h Lepomis macrochirus LC50 1.17 mg/L 96 h Lepomis macrochirus LC50 0.73 - 2.35 mg/L 96 h Pimephales promelas LC50 5.9 mg/L 96 h Pimephales promelas LC50 1.5 mg/L 96 h Poecilia reticulata LC50 1.19 mg/L 96 h Poecilia reticulata	LC50 25.4 mg/L 48 h Daphnia magna

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Do not reuse containers for any purpose. Make the empty container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Do not contaminate water, food, or feed by storage or disposal. For disposal, the container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse the product container for any other purpose.

Contaminated packaging

Do not reuse container.

14. TRANSPORT INFORMATION

DOT

UN/ID no

Not regulated

Proper shipping name

Not regulated

U.S. Surface Freight Classification:

CLEANING, SCOURING OR WASHING COMPOUNDS, NOI, OTHER THAN LIQUID, (NMFC 48581; CLASS 55)



SAFETY DATA SHEET

FLUSH

SDS REVISIONS: ALL SECTIONS DATE OF ISSUE: 11/30/2018

SUPERSEDES: 09/14/2015

15. REGULATORY INFORMATION

<u>NFPA</u>	Health hazards 3	Flammability 1	Instability 0	Physical and Chemical Properties - Personal protection X	
<u>HMIS</u>	Health hazards 3	Flammability 1	Physical hazards 0		
	0 - Least	1 - Slight	2 - Moderate	3 - High	4 - Severe

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Ammonia - 7664-41-7	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ammonia 7664-41-7	100 lb	-	-	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Ammonia 7664-41-7	100 lb	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. EPA Label Information



SAFETY DATA SHEET

FLUSH

SDS REVISIONS: ALL SECTIONS DATE OF ISSUE: 11/30/2018

SUPERSEDES: 09/14/2015

16. OTHER INFORMATION

Prepared By Product Stewardship and Regulatory Affairs

Reviewed By Safety, Health and Environment

Issue Date 11/30/2018

Revision Date 11/30/2018

Revision Note

16 SDS sections updated

FLUSH is a registered trademark of Loveland Products Canada, Inc.

Disclaimer

This safety data sheet was developed from information on the constituent materials identified herein and does not relate to the use of such materials in combination with any other material or process. No warranty is expressed or implied with respect to the completeness or ongoing accuracy of the information contained in this data sheet, and LOVELAND PRODUCTS CANADA, INC. disclaims all liability for reliance on such information. This data sheet is not a guarantee of safety. Users are responsible for ensuring that they have all current information necessary to safely use the product described by this data sheet for their specific purpose.

End of Safety Data Sheet