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MATERIAL SAFETY DATA SHEET (MSDS)

HYDROFLUORIC ACID 40 % LR

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : HYDROFLUORIC ACID 40 % LR

Product code : SA0010400500
 CAS No: 7664-39-3

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

Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet

Company identification : SUVCHEM
 Chaitanya Tower, 2nd Floor, Office # 206,
 Siddharth Nagar, S.V. Road,
 Goregaon (West), Mumbai - 400062,
 Maharashtra, India.
 Contact: +91 22 28725393 / 94 / 95
 Email ID: info@suvchem.com/care@suvchem.com

1.4. Emergency telephone number

Phone no. : + 91 22 28725393 / 94 / 95 (9:00am - 6:00 pm) [Office hours]

2. Hazards identification -DSD

2.1. Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45

Classification : T+; R26/27/28
 C; R35

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards : Acute toxicity, Oral - Category 1 - Danger (CLP : Acute Tox. 1) H300
 Acute toxicity, Inhalation - Category 2 - Danger (CLP : Acute Tox. 2) H330
 Skin corrosion - Category 1A - Danger (CLP : Skin Corr. 1A) H314
 Acute toxicity, dermal - Category 1 - Danger (CLP : Acute Tox. 1) H310

2.2. Label elements

Labelling EC 67/548 or EC 1999/45

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2. Hazards identification -DSD (continued)

Symbol(s)



Symbol(s)

: T+ : Very toxic
C : Corrosive

R Phrase(s)

: R26/27/28 : Very toxic by inhalation, in contact with skin and if swallowed.
R35 : Causes severe burns.

S Phrase(s)

: S4 : Keep away from living quarters.
S24 : Avoid contact with skin.
S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 : After contact with skin, wash immediately with
S35 : This material and its container must be disposed of in a safe way.
S36/37/39 : Wear suitable protective clothing, gloves and eye/face protection.
S38 : In case of insufficient ventilation, wear suitable respiratory equipment.
S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).
S59 : Refer to manufacturer/supplier for information on recovery/recycling.

Contains

: Water - Hydrofluoric acid - solution

Labelling Regulation EC 1272/2008 (CLP)

Hazard pictograms



Signal words

: Danger

Hazard statements

: H300 : Fatal if swallowed.
H310 : Fatal in contact with skin.
H330 : Fatal if inhaled.
H314 : Causes severe skin burns and eye damage.

Precautionary statements

• Prevention

: P284: Wear respiratory protection.
P280: Wear protective gloves, protective clothing, eye protection, face protection.
P271: Use only outdoors or in a well-ventilated area.
P260: Do not breathe dust, fume, gas, mist, vapours, spray.
P264: Wash thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.

• Response

: P301+P330+P331: IF SWALLOWED : Rinse mouth. Do NOT induce vomiting.
P305+P351+P338: IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.
P302+P350: IF ON SKIN : Gently wash with plenty of soap and water.
P303+P361+P353: IF ON SKIN (or hair) : Remove immediately all contaminated clothing. Rinse skin with water/shower.

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2. Hazards identification -DSD (continued)

- P363: Wash contaminated clothing before reuse.
P361: Remove immediately all contaminated clothing.
- **Storage** : P403+P233: Store in well-ventilated place. Keep container tightly closed.
P405: Store locked up.
 - **Disposal considerations** : P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
 - Contains** : Water - Hydrofluoric acid - solution

2.3. Other hazards

- Other hazards** : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

3. Composition/information on ingredients

- Substance / Preparation** : Preparation.
Hazardous component(s) : This product is hazardous.

Substance name	Contents	CAS No	EC No	Annex No	REACH Ref.	Classification
Hydrofluoric acid - solution	> 25 < 50 %	7664-39-3	231-634-8	009-003-00-1	----	T+; R26/27/28 C; R35 ----- Acute Tox. 1 (skin) _ H310 Acute Tox. 3 (inhal) _ H331 Acute Tox. 1 (oral) _ H300 Skin Corr. 1A+ _ H314 Eye Dam 1 _ H318
Water	> 50 < 75 %	7732-18-5	231-791-2	----	----	Not classified (DSD/DPD) ----- Not classified (GHS)

4. First aid measures

4.1. Description of first aid measures

- Inhalation** : Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor. Specific treatment is urgent (see on this label).
- Skin contact** : Immediately call a POISON CENTER or doctor. Specific treatment (see on this label). Wash contaminated clothing before reuse. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water.
- Eye contact** : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
- Ingestion** : Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor. Specific treatment (see on this label).

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

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4. First aid measures (continued)

Symptoms relating to use : Fatal if swallowed.
Fatal in contact with skin.
Fatal if inhaled.
Causes severe skin burns and eye damage.

4.3. Indication of any immediate medical attention and special treatment needed

General information : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media : Do not use a heavy water stream.
Surrounding fires : Use water spray or fog for cooling exposed containers.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products : Under fire conditions, hazardous fumes will be present.
Thermal decomposition generates : Corrosive vapours.

5.3. Advice for fire-fighters

Protection against fire : Do not enter fire area without proper protective equipment, including respiratory protection.
Special procedures : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For emergency responders : Equip cleanup crew with proper protection.
Ventilate area.
For non-emergency personnel : Evacuate unnecessary personnel.

6.2. Environmental precautions

Environmental precautions : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

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6. Accidental release measures (continued)

Clean up methods : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Store away from other materials. Collect spillage.

6.4. Reference to other sections

See section 8. Exposure controls/personal protection

7. Handling and storage

7.1. Precautions for safe handling

Handling : Do not breathe dust, fume, gas, mist, vapours, spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area.

Technical protective measures : Provide good ventilation in process area to prevent formation of vapour.

7.2. Conditions for safe storage, including any incompatibilities

Storage : Keep only in the original container in a cool, well ventilated place. Keep container tightly closed.

Storage regulation : Comply with applicable regulations.

Storage - away from : Strong bases. Strong acids. Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

Specific end use(s) : None.

8. Exposure controls/personal protection

8.1. Exposure controls

Personal protection



Personal protection : Avoid all unnecessary exposure.

- **Respiratory protection** : Wear respiratory protection.
- **Hand protection** : Wear protective gloves.
- **Skin protection** : Wear suitable protective clothing.
- **Eye protection** : Chemical goggles or face shield.
- **Others** : When using, do not eat, drink or smoke.

8.2. Control parameters

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8. Exposure controls/personal protection (continued)

Occupational Exposure Limits : No data available.

9. Physical and chemical properties
9.1. Information on basic physical and chemical properties

Physical state at 20 °C	: Liquid.
Colour	: Colorless
Odour	: Characteristic.
Odour threshold	: No data available.
pH value	: No data available.
Melting point [°C]	: < -360C
Decomposition point [°C]	: N/A
Critical temperature [°C]	: No data available.
Auto-ignition temperature [°C]	: No data available.
Flammability (solid, gas)	: N/A
Flash point [°C]	: No data available.
Boiling point [°C]	: 1080C
Initial boiling point [°C]	: No data available.
Final boiling point [°C]	: No data available.
Evaporation rate	: N/A
Vapour pressure [20°C]	: No data available.
Vapour pressure mm/Hg	: 25 mm Hg @ 200C
Vapour density	: 1,97
Density [g/cm ³]	: 1.15 -1.18
Relative density, gas (air=1)	: N/A
Relative density, liquid (water=1)	: N/A
Solubility in water [% weight]	: Infinitely soluble
Solubility in water	: No data available.
Log Pow octanol / water at 20°C	: No data available.
Solubility	: Acidic.
Viscosity at 40°C [mm ² /s]	: No data available.

9.2. Other information

Explosive properties	: N/A
Explosion limits - upper [%]	: No data available.
Explosion limits - lower [%]	: No data available.
Oxidising properties	: No data available.

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10. Stability and reactivity
10.1. Reactivity

Reactivity : Not established.

10.2. Chemical stability

Chemical stability : Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions : Not established.

10.4. Conditions to avoid

Conditions to avoid : Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Materials to avoid : Strong acids. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide.
 Thermal decomposition generates : Corrosive vapours.

11. Toxicological information
11.1. Information on toxicological effects

Toxicity information : The product has been not fully tested. The calculated risk has been done under the requirements of the EU regulations.

Acute toxicity

- Inhalation : Fatal if inhaled.
- Dermal : Fatal in contact with skin.
- Ingestion : Fatal if swallowed.

Corrosion : Causes severe skin burns and eye damage.

Irritation : Based on available data, the classification criteria are not met.

Sensitization : Based on available data, the classification criteria are not met.

Mutagenicity : Based on available data, the classification criteria are not met.

Carcinogenicity : Based on available data, the classification criteria are not met.

Toxic for reproduction : Based on available data, the classification criteria are not met.

STOT-single exposure : Based on available data, the classification criteria are not met.

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11. Toxicological information (continued)

- STOT-repeated exposure** : Based on available data, the classification criteria are not met.
Aspiration hazard : Based on available data, the classification criteria are not met.

12. Ecological information
12.1. Toxicity

- Toxicity information** : The product has been not fully tested. The calculated risk has been done under the requirements of the EU regulations.

12.2. Persistence - degradability

- Persistence - degradability** : Biodegradable.

12.3. Bioaccumulative potential

- Bioaccumulative potential** : Not established.

12.4. Mobility in soil

- Mobility in soil** : Not established.

12.5. Results of PBT and vPvB assessment

- Results of PBT and vPvB assessment** : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6. Other adverse effects

- Environmental precautions** : Avoid release to the environment.

13. Disposal considerations
13.1. Waste treatment methods

- General** : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.
 Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
- Special precautions** : Hazardous waste due to toxicity.

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14. Transport information

14.1. Land transport (ADR-RID)

Proper shipping name : HYDROFLUORIC ACID, with not more than 60% strength hydrogen fluoride
UN N° : 1790
H.I. nr : 86
ADR - Class : 8
Labelling - Transport : 8 : Corrosive substance. 6.1 : Toxic substances.



ADR - Classification code : CT1
CT1
CT1
CT1
ADR - Group : II
ADR - Packing instructions : P001
ADR - Limited Quantity : 1 L
ADR - Tunnel code : E : Passage forbidden through tunnels of category E.



14.2. Sea transport (IMDG) [English only]

Proper shipping name : HYDROFLUORIC ACID, with not more than 60% strength hydrogen fluoride
UN N° : 1790
IMO-IMDG - Class or division : 8 : Corrosive substance. (6.1 : Toxic substances.)
IMO-IMDG - Packing group : II
IMO-IMDG - Packing instructions : P001
IMO-IMDG - Limited quantities : 1 L
IMO-IMDG - Marine pollution : No
EMS-Nr : F-A S-B

14.3. Air transport (ICAO-IATA) [English only]

Proper shipping name : HYDROFLUORIC ACID, with not more than 60% strength hydrogen fluoride
UN N° : 1790
IATA - Class or division : 8 : Corrosive substance. (6.1 : Toxic substances.)

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14. Transport information (continued)

IATA - Packing group	: II
- Passenger and Cargo - Packing instruction	: 851
- Passenger and Cargo - Maximum Quantity/Packing	: 1 L
IATA - Cargo only	: ALLOWED
- Cargo only - Packing instruction	: 855
- Cargo only - Maximum Quantity/Packing	: 30 L
IATA - Limited Quantities	: 0.5L
ERG-Nr	: 8P

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Safety, health and environmental regulations/legislation specific for the substance or mixture	: Ensure all national/local regulations are observed.
REACH Restrictions - Annex XVII	: The components of this product are not subject to restrictions.
REACH Authorisation - Annex XIV	: The components of this product are not subject to authorization.

15.2. Chemical Safety Assessment

Chemical Safety Assessment	: It has not been carried out.
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16. Other information

Revision	: Revision - See : *
Abbreviations and acronyms	: PBT: persistent, bioaccumulative and toxic. vPvB: very persistent and very bioaccumulative
Sources of key data used	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
List of relevant R phrases (heading 3)	: R26/27/28 : Very toxic by inhalation, in contact with skin and if swallowed. R35 : Causes severe burns.
List of full text of H-statements in section 3	: H300 : Fatal if swallowed. H310 : Fatal in contact with skin. H314 : Causes severe skin burns and eye damage. H318 : Causes serious eye damage. H331 : Toxic if inhaled.

MATERIAL SAFETY DATA SHEET (MSDS)

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

DISCLAIMER:

- **SUVCHEM** Products are to be used as Lab Chemicals for R&D only. Not for drug, medicinal, household or other uses.
- **SUVCHEM** shall not be responsible for any damage resulting from handling or from contact with the above product.
- **SUVCHEM** provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product.

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