



# MSDS

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

### 1.1 Product identifier

Trade name **3,4-Dichlorobenzotrifluoride**  
Stock number: A15098, L07758  
CAS Number: 328-84-7  
EC number: 206-337-1

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

Identified use: SU24 Scientific research and development

### 1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Haihang Industry Co., Ltd

7/F, Sanqing Fengrun Building, No. 100 South Gongye Road, Jinan City, China.P.C.: 250100

Fax: 86-531-85821093

Office phone : 86-531-88032799

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

GHS05 corrosion

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

GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

C;

Corrosive

R34: Causes burns.

Xn; Harmful

R22: Harmful if swallowed.

Information concerning particular hazards for human and environment:

Other hazards that do not result in classification

Not applicable

No information known.

### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

Signal word

Hazard statements

The substance is classified and labelled according to the CLP regulation.

GHS05, GHS07

Danger

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

P260

Do not breathe dust/fume/gas/mist/vapours/spray.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce

vomiting. P405

Store locked up.

P501

Dispose of contents/container in accordance with local/regional/national/international regulations.

### 2.3 Other hazards

Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

CAS# Designation: 328-84-7 3,4-Dichlorobenzotrifluoride

Identification number(s):

EC number: 206-337-1

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General information

After inhalation

Instantly remove any clothing soiled by the product.

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

Seek immediate medical advice.

After skin contact

Instantly wash with water and soap and rinse thoroughly.

Seek immediate medical advice.

After eye contact

Rinse opened eye for several minutes under running water. Then consult doctor.

After swallowing

Seek medical treatment.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing agents CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

### 5.2 Special hazards arising from the substance or mixture

If this product is involved in a fire, the following can be released: Carbon monoxide and carbon dioxide

Hydrogen fluoride (HF)  
Hydrogen chloride (HCl)

### 5.3 Advice for firefighters

#### Protective equipment:

Wear self-contained breathing apparatus.

Wear full protective suit.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

### 6.2 Environmental precautions:

Do not allow material to be released to the environment without proper governmental permits.

Do not allow product to reach sewage system or water bodies.

Do not allow to enter the ground/soil.

### 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Use neutralizing agent.

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

Keep away from ignition sources.

### Prevention of secondary hazards:

### 6.4 Reference to other sections

See Section 7 for information on safe handling

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Keep containers tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation/exhaustion at the workplace.

### Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage Requirements to be met by storerooms and containers:

No special requirements.

#### Information about storage in one common storage facility:

Store away from oxidizing agents.

#### Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

Store in a locked cabinet or with access restricted to technical experts or their assistants.

### 7.3 Specific end use(s)

No further relevant information available.

## SECTION 8: Exposure controls/personal protection

### Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

### 8.1 Control parameters

#### Components with critical values that require monitoring at the workplace:

#### 328-84-7 3,4-Dichlorobenzotrifluoride (100,0%)

AGW (Germany) 1 E mg/m<sup>3</sup>  
4(II);als Fluor berechnet; DFG, Y, H

#### Ingredients with biological limit values:

#### 328-84-7 3,4-Dichlorobenzotrifluoride (100,0%)

BGW (Germany) 7,0 mg/g Kreatinin

U

b

Fluorid

4,0 mg/g Kreatinin

U

d

Fluorid

BEI (USA)

2 mg/L

urine

prior to shift

Fluoride (background, nonspecific)

3 mg/L

urine

end of shift

Fluoride (background, nonspecific)

#### Additional information:

No data

### 8.2 Exposure controls

#### Personal protective equipment

#### General protective and hygienic measures

The usual precautionary measures should be adhered to in handling the chemicals.

Keep away from foodstuffs, beverages and food.

Instantly remove any soiled and impregnated garments.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

Maintain an ergonomically appropriate working environment.

Use breathing protection with high concentrations.

Check protective gloves prior to each use for their proper condition.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Impervious gloves

Not determined

#### Material of gloves

#### Penetration time of glove material

#### Eye protection:

Tightly sealed safety glasses.

Full face protection

#### Body protection:

Protective work clothing.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### General Information

#### Appearance:

Form:

Liquid

Colour:

Colourless

Smell:	Not determined
Odour threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	173-174 °C
Sublimation temperature / start:	Not determined
Flash point:	66 °C
Inflammability (solid, gaseous)	Not determined.
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Self-inflammability:	Not determined.
Danger of explosion:	Product is not explosive.
Critical values for explosion:	
Lower:	Not determined
Upper:	Not determined
Steam pressure:	Not determined
Density at 20 °C	1,478 g/cm <sup>3</sup>
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
Water:	Not determined
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
dynamic:	Not determined.
kinematic:	Not determined.
9.2 Other information	No further relevant information available.

DE/E

### SECTION 10: Stability and reactivity

10.1 Reactivity	No information known.
10.2 Chemical stability	Stable under recommended storage conditions.
Thermal decomposition / conditions to be avoided:	No decomposition if used and stored according to specifications.
10.3 Possibility of hazardous reactions	No dangerous reactions known
10.5 Incompatible materials:	Oxidizing agents
10.6 Hazardous decomposition products:	Carbon monoxide and carbon dioxide Hydrogen fluoride Hydrogen chloride (HCl)

### SECTION 11: Toxicological information

11.1 Information on toxicological effects	
Acute toxicity:	Harmful if swallowed. Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
LD/LC50 values that are relevant for classification:	No data
Skin irritation or corrosion:	Causes severe skin burns.
Eye irritation or corrosion:	Irritant effect. Causes serious eye damage.
Sensitization:	No sensitizing effect known.
Germ cell mutagenicity:	No effects known.
Carcinogenicity:	No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
Reproductive toxicity:	No effects known.
Specific target organ system toxicity - repeated exposure:	No effects known.
Specific target organ system toxicity - single exposure:	No effects known.
Aspiration hazard:	No effects known.
Additional toxicological information:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

### SECTION 12: Ecological information

12.1 Toxicity	
Aquatic toxicity:	No further relevant information available.
12.2 Persistence and degradability	No further relevant information available.
12.3 Bioaccumulative potential	No further relevant information available.
12.4 Mobility in soil	No further relevant information available.
Additional ecological information:	
General notes:	Do not allow material to be released to the environment without proper governmental permits. Water hazard class 1 (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. Avoid transfer into the environment.
12.5 Results of PBT and vPvB assessment	
PBT:	Not applicable.
vPvB:	Not applicable.
12.6 Other adverse effects	No further relevant information available.

### SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Recommendation	Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal.
Uncleaned packagings:	
Recommendation:	Disposal must be made according to official regulations.

### SECTION 14: Transport information

UN-Number	
ADR, IMDG, IATA	UN1760

**14.2 UN proper shipping name**ADR  
IMDG, IATA1760 CORROSIVE LIQUID, N.O.S. (3,4-Dichlorobenzotrifluoride)  
CORROSIVE LIQUID, N.O.S. (3,4-Dichlorobenzotrifluoride)**14.3 Transport hazard class(es)**

ADR

Class  
Label  
IMDG, IATA8 (C9) Corrosive substances.  
8Class  
Label  
Packing group  
ADR, IMDG, IATA8 Corrosive substances.  
8**14.5 Environmental hazards:**

III

**14.6 Special precautions for user**

Kemler Number:

Not applicable.  
Warning: Corrosive substances.  
80**14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

Transport/Additional information:

ADR

Excepted quantities (EQ):  
Limited quantities (LQ)  
Transport category  
Tunnel restriction codeE1  
5L  
3  
E

UN "Model Regulation":

UN1760, CORROSIVE LIQUID, N.O.S. (3,4-Dichlorobenzotrifluoride), 8, III

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Australian Inventory of Chemical

Substances  
Substance is listed.

Standard for the Uniform Scheduling of

Drugs and Poisons  
Substance is not listed.

National regulations

Information about limitation of use:

Employment restrictions concerning young persons must be observed.  
For use only by technically qualified individuals.

Water hazard class:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

Other regulations, limitations and prohibitive regulations

ELINCS (European List of Notified Chemical

Substances)  
Substance is not listed.

Substances of very high concern (SVHC)

according to REACH, Article 57  
Substance is not listed.

REACH - Pre-registered substances

Substance is listed.

**15.2 Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing data specification sheet: Health, Safety and Environmental Department.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)