

## 1. Identification of substance/preparation and of the company/undertaking

Product details:

Trade name: Fluorine Separate Spray

Manufacturer/Supplier:

TOYO KAGAKU SHOKAI CO., LTD

9-37-1 Kameido Koto-ku

Tokyo 136-0071 JAPAN

Tel: 81-3-3685-4351

Informing department: Product safety department.

Emergency information: Product safety department.

## 2. Hazard identification

GHS label elements



Danger

2.3/1 Extremely flammable aerosol



Warning

3.1/4 Harmful if swallowed

3.2/2 Causes skin irritation

3.3/2A Causes serious eye irritation

3.4/1 May cause an allergic skin reaction.



Danger

3.7/2 Suspected of damaging fertility or the unborn child

3.8/1 Causes damage to organs kidney, liver, the blood system.

3.8/3 May cause respiratory irritation; or  
May cause drowsiness or dizziness

3.9/1 Causes damage to organs central nervous system, peripheral nerve, kidney, liver, the blood system  
through prolonged or repeated .

3.9/2 May cause damage to organs respiratory tract through prolonged or repeated exposure.

3.10/1 May be fatal if swallowed and enters airways.

No symbol No signal word

4.1/2 Toxic to aquatic life

4.1/3 Harmful to aquatic life with long lasting effects

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container: Do not pierce or burn, even after use.

Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wear protective gloves.

Wear eye protection / face protection.

Avoid breathing dust / fume / gas / mist / vapours / spray.  
 Contaminated work clothing should not be allowed out of the workplace.  
 Wear protective gloves.  
 Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Use personal protective equipment as required.  
 Do not breathe dust / fume / gas / mist / vapours / spray.  
 Use only outdoors or in a well-ventilated area.  
 Avoid release to the environment.

## Response:

## IF SWALLOWED:

Call a POISON CENTER or doctor / physician if you feel unwell.  
 Immediately call a POISON CENTER or doctor / physician.  
 Do not induce vomiting.  
 Rinse mouth.

## IF ON SKIN:

Wash with plenty of soap and water.  
 If skin irritation occurs: Get medical advice / attention.  
 Take off contaminated clothing and wash before reuse.  
 Wash contaminated clothing before reuse.

## IF IN EYES:

Rinse cautiously with water for several minutes.  
 Remove contact lenses, if present and easy to do. Continue rinsing.  
 If eye irritation persists: Get medical advice / attention.  
 If exposed or concerned: Get medical advice / attention.  
 If exposed: Call a POISON CENTER or doctor / physician.

## IF INHALED:

Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 Call a POISON CENTER or doctor / physician if you feel unwell.  
 Get medical advice / attention if you feel unwell.

## Storage:

Store locked up.  
 Store in a well-ventilated place.  
 Keep container tightly closed.

## Disposal:

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

**3. Composition/information on ingredients**

## Description:

Mixture consisting of the following components

CAS No	Designation	% (Wt)
110-54-3	n-hexane	2.4
78-87-5	1,2-Dichloropropane	9.1
74-98-6	Propane	83-93
106-97-8	Butane	
75-28-5	Propane 2-methyl-	

#### **4. First aid measures**

After inhalation:

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

After skin contact:

Wipe the substance off quickly.

Wash with water and soap instantly. Do not wash with solvent or thinner.

If skin irritation continues, consult a doctor.

After eye contact:

Rinse opened eye for more than 15 minutes under running water. If symptoms persist, consult doctor.

After swallowing:

Rinse out mouth and then take immediate medical care. Call a doctor immediately. Do not induce vomiting.

#### **5. Fire fighting measures**

Suitable extinguishing agents:

Extinguishing powder or bubble jet, CO<sub>2</sub> should be used.

Supplying water is to prevent additional fire extension or to cool the container. Protective equipment:

Put on protective cloth, respiratory mask, circulatory mask for respiration, or rubber boots.

#### **6. Accidental release measures**

Person-related safety precaution:

Put on protective equipment as gloves, mask, and glasses.

Prepare appropriate extinguisher in case of ignition.

Measures for environmental protection:

Store in safety place after collecting waste in plastic container to prevent possible spark.

Measures for cleaning/collecting:

Absorb with dried sand or other unflammable material if the collection is difficult. Ensure not to damage environment by releasing wastes to river.

#### **7. Handling and storage**

Information for safe handling:

Ensure good ventilation at the workplace.

Close containers tightly in each use.

Avoid using fire, spark or high temperature materials.

Avoid contact with skin and eyes.

Information about protection against explosions and fires:

Keep ignition sources away. Do not smoke.

Protect against electrostatic charges.

Storage:

Requirements to be met by storerooms and containers:

Refrain from direct sunlight. Store in good ventilation. Keep away from ignition.

Store in cool, dry conditions.

## 8. Exposure controls and personal protection

CAS No	Designation of material	Type	Value	Unit
110-54-3	n-hexane	ACGIH (TWA)	50	ppm
78-87-5	1,2-Dichloropropane	ACGIH (TWA)	10	ppm
74-98-6	Propane	ACGIH (TWA)	1000	ppm
106-97-8	Butane	ACGIH (TWA)	1000	ppm
75-28-5	Propane 2-methyl-	ACGIH (TWA)	1000	ppm

Personal protective equipment:

General protective and hygienic measures:

Use exposure controls. Equip ventilation system to avoid accumulation of steam.

Keep away from foodstuffs, beverages and food.

Avoid contact with the eyes and skin.

Breathing equipment:

Use breathing filter for organic gas in a closed room.

Protection of hands: Use protective gloves.

Eye protection: Tightly sealed safety glasses.

## 9. Physical and chemical properties

Components	Undiluted solution	Gas
Appearance	Yellowish brown and slightly cloudy liquid	Colorless gas
Density	1.00g/cm <sup>3</sup>	0.66g/cm <sup>3</sup>
Melting point	0°C	-141.5°C
boiling point	69°C	-24.82°C
Flash point	12°C	-41.0°C
Explosion limit	No data	3.4~26.7vol%
Resolvable	Insoluble(to water)	No data
Ignition point	No data	350°C
Steamy specific gravity (Air=1)	No data	No data
Vapor pressure	No data	No data

## 10. Stability and reactivity

Conditions to be avoided: No decomposition if used according to specifications

Materials to be avoided: Strong Oxidizers

Dangerous reactions: No dangerous reactions known

Dangerous products of composition: None

**11. Toxicological information**

Components		Type	Value	Species
110-54-3	n-hexane	no data		
78-87-5	1,2-Dichloropropane	inhalative LC50	720ppm	mouse 10h
74-98-6	Propane	no data		
106-97-8	Butane	no data		
75-28-5	Propane 2-methly-	no data		

**12. Ecological information**

Resolution: No data

Accumulation: No data

**13. Disposal considerations**

Disposal of used paint or containers must be done under authorized industrial officials.

Do not release contaminated water into sewage system or river.

System to prevent fuel fumes as HCl, HF, CO is needed in case of incineration.

**14. Transport information**

Ensure there is no leakage from container, up side down or damage from falling.

**15. Regulatory information**

Code letter and hazard designation of product:

Highly flammable

Hazard-determining components of labeling:

Butane, propane

Risk phrases:

Harmful by inhalation, in contact with skin and if swallowed.

Highly flammable

Irritating to skin

Safety phrases:

Avoid contact with skin and eyes

If swallowed, seek medical advice immediately and show this container or label

Keep away from sources of ignition. No smoking.

**UN No. 1950**

**Class 2.1 AEROSOLS FLAMMABLE (maximum 1L) No Sub Risks**

**16. Other information**

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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