

## SAFETY DATA SHEET

# TH-78

### SECTION 1: Identification

#### 1.1. Product identifier

TRADE NAME TH-78

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

RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE Industrial purposes

USES ADVISED AGAINST None known.

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

▼ COMPANY AND ADDRESS **Hitachi Industrial Equipment & Solutions America, LLC**  
75 NW Point Blvd Suite D  
60007 Elk Grove Village, IL  
United States  
+1 (800) 627-5464  
<https://mc.hitachi-iesa.com>

SDS DATE 7/18/2025  
SDS VERSION DATE OF PREVIOUS VERSION 1.0  
7/14/2025 (1.0)

#### 1.4. Emergency telephone number

+1 (800) 424-9300

### SECTION 2: Hazard(s) identification

#### OSHA/HCS status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

#### 2.1. Classification of the substance or mixture

Flam. Liq. 2; H225, Highly flammable liquid and vapour.  
Skin Irrit. 2; H315, Causes skin irritation.  
Eye Irrit. 2; H319, Causes serious eye irritation.

#### 2.2. Label elements

HAZARD PICTOGRAM(S)



SIGNAL WORD Danger

HAZARD STATEMENT(S) Highly flammable liquid and vapour. (H225)  
Causes skin irritation. (H315)  
Causes serious eye irritation. (H319)

PRECAUTIONARY STATEMENT(S)

General If medical advice is needed, have product container or label at hand. (P101)  
Keep out of reach of children. (P102)

Prevention Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. (P210)  
Keep container tightly closed. (P233)

Response	Wash hands thoroughly after handling. (P264) Wear eye protection/protective gloves. (P280) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338) If eye irritation persists: Get medical advice/attention. (P337+P313) In case of fire: Use water mist/carbon dioxide/alcohol-resistant foam to extinguish. (P370+P378)
Storage	Store in a well-ventilated place. Keep cool. (P403+P235)
Disposal	Dispose of contents/container in accordance with local regulation. (P501)
ADDITIONAL LABELLING	Not applicable.

## SECTION 3: Composition/Information on Ingredients

### 3.1. Substances

Not applicable. This product is a mixture.

### 3.2. Mixtures

PRODUCT/SUBSTANCE	IDENTIFIERS	% W/W	CLASSIFICATION	NOTE
ethanol;ethyl alcohol	CAS No.: 64-17-5	60-80%	Flam. Liq. 2, H225	
acetone;propan-2-one;propanone	CAS No.: 67-64-1	5-10%	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 Repeated exposure may cause skin dryness or cracking	
ammonia ....%	CAS No.: 1336-21-6	1-3%	Skin Corr. 1B, H314 STOT SE 3, H336 (SCL: 5.00 %)	

Where the concentration of an ingredient is expressed as a range the exact concentration has been withheld as a trade secret.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

### Other information

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## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

GENERAL INFORMATION	If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid). Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.
INHALATION	Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.
SKIN CONTACT	IF ON SKIN: Wash with plenty of water and soap. Remove contaminated clothing and shoes. Ensure to wash exposed skin thoroughly with water and soap. DO NOT use solvents or thinners. If skin irritation occurs: Get medical advice/attention.
EYE CONTACT	If in eyes: Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. Remove contact lenses. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

INGESTION	If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.
BURNS	Rinse with water until pain stops then continue to rinse for 30 minutes.

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

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.  
Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

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

If eye irritation persists: Get medical advice/attention.

#### Information to medics

Bring this safety data sheet or the label from this product.

## SECTION 5: Fire-fighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.  
Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

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

Highly flammable liquid and vapour.  
In use may form flammable/explosive vapour-air mixture.  
Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.  
If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:  
Carbon oxides (CO / CO<sub>2</sub>)

#### 5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact the Poison Help Line on 1-800-222-1222 (24/7) in order to obtain further advice.

## SECTION 6: Accidental release measures

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

Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it. Ensure sufficient ventilation.  
Avoid direct contact with spilled substances.  
Ensure adequate ventilation, especially in confined areas.  
Contaminated areas may be slippery.

#### 6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.  
Keep unauthorized persons away from the spill

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

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.  
Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

#### 6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.  
See section 8 "Exposure controls/personal protection" for protective measures.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Ground and bond container and receiving equipment.
- Use explosion-proof [electrical/lighting/ventilating] equipment.
- Use non-sparking tools.
- Take action to prevent static discharges.
- Avoid contact during pregnancy and while nursing.
- Smoking, drinking and consumption of food is not allowed in the work area.
- See section 8 "Exposure controls/personal protection" for information on personal protection.

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

- Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
- Take action to prevent static discharges.
- Must be stored in a cool and well-ventilated area, away from possible sources of ignition.

RECOMMENDED STORAGE Keep only in original packaging.

#### MATERIAL

▼ LIQUID CLASS Flammable liquid / Class IB (NFPA 30)

STORAGE CONDITIONS Dry, cool and well ventilated

INCOMPATIBLE MATERIALS Reducing agents  
Strong oxidizing agents

### 7.3. Specific end use(s)

- This product should only be used for applications quoted in section 1.2.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

- ethanol;ethyl alcohol
- Short term exposure limit (STEL) (ACGIH TLV) (ppm): 1000
- Long term exposure limit (OSHA Table Z-1) (mg/m<sup>3</sup>): 1900
- Long term exposure limit (OSHA Table Z-1) (ppm): 1000

- acetone;propan-2-one;propanone
- Short term exposure limit (STEL) (ACGIH TLV) (ppm): 500
- Long term exposure limit (OSHA Table Z-1) (mg/m<sup>3</sup>): 2400
- Long term exposure limit (OSHA Table Z-1) (ppm): 1000
- Long term exposure limit (ACGIH TLV) (ppm): 250

Part 1910 - Occupational Safety and Health Standards (29 CFR 1910.1000 TABLE Z-1 - Limits for Air Contaminants)

### 8.2. Exposure controls

- Compliance with the given occupational exposure limits values should be controlled on a regular basis.

GENERAL Smoking, drinking and consumption of food is not allowed in the work area.

#### RECOMMENDATIONS

EXPOSURE SCENARIOS There are no exposure scenarios implemented for this product.

EXPOSURE LIMITS Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

APPROPRIATE TECHNICAL MEASURES The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked.

HYGIENE MEASURES Apply standard precautions during use of the product. Avoid inhalation of vapours.

MEASURES TO AVOID Take off contaminated clothing and wash it before reuse.

ENVIRONMENTAL No specific requirements.

#### EXPOSURE

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2024)

## Individual protection measures, such as personal protective equipment

GENERALLY Use only protective equipment with a recognized certification mark, e.g. the UL mark.

### RESPIRATORY EQUIPMENT

TYPE	CLASS	COLOUR	STANDARDS	
No special when used as intended.				

### SKIN PROTECTION

RECOMMENDED	TYPE/CATEGORY	STANDARDS	
No special when used as intended.	-	-	

### HAND PROTECTION

MATERIAL	GLOVE THICKNESS (MM)	BREAKTHROUGH TIME (MIN.)	STANDARDS	
Butyl	0,3	> 240	EN374-2, EN16523-1, EN388	

### EYE PROTECTION

TYPE	STANDARDS	
Safety glasses	EN166	

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

PHYSICAL STATE	Liquid
COLOR	Colourless
ODOR	Alcohol odor
ODOR THRESHOLD (PPM)	No data available.
PH	Not applicable - pH is not defined for non-aqueous systems
DENSITY (G/CM <sup>3</sup> )	0.902
KINEMATIC VISCOSITY	No data available.
PARTICLE CHARACTERISTICS	Does not apply to liquids.

### Phase changes

MELTING POINT/FREEZING POINT (°F)	-
MELTING POINT/FREEZING POINT (°C)	-94.0
SOFTENING POINT/RANGE (°F)	Does not apply to liquids.
BOILING POINT (°F)	-
▼ BOILING POINT (°C)	56
VAPOR PRESSURE	No data available.
RELATIVE VAPOR DENSITY	No data available.
DECOMPOSITION TEMPERATURE (°F)	No data available.

### Data on fire and explosion hazards

▼ FLASH POINT (°F)	-
FLASH POINT (°C)	-20

FLAMMABILITY (°F)	The material is ignitable.
AUTO-IGNITION TEMPERATURE (°F)	-
AUTO-IGNITION TEMPERATURE (°C)	365.0
EXPLOSION LIMITS (% V/V)	No data available.

#### Solubility

SOLUBILITY IN WATER	No data available.
N-OCTANOL/WATER COEFFICIENT (LOGKOW)	No data available.
SOLUBILITY IN FAT (G/L)	No data available.

#### 9.2. Other information

OTHER PHYSICAL AND CHEMICAL PARAMETERS	No data available.
OXIDIZING PROPERTIES	No data available.

## SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No data available.

#### 10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

#### 10.3. Possibility of hazardous reactions, including those associated with foreseeable emergencies

None known.

#### 10.4. Conditions to avoid

Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.  
Extremes of temperature  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.  
Moisture

#### 10.5. Incompatible materials

Reducing agents  
Strong oxidizing agents

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Acute toxicity

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

##### Skin corrosion/irritation

Causes skin irritation.

##### Serious eye damage/irritation

Causes serious eye irritation.

##### Respiratory sensitisation

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

##### Skin sensitisation

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

##### Germ cell mutagenicity

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

##### Carcinogenicity

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

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2024)

**Reproductive toxicity**

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

**STOT-single exposure**

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

**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.

**Long term effects**

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

**Other information**

None known.

**SECTION 12: Ecological information**

**12.1. Toxicity**

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

**12.2. Persistence and degradability**

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

**12.3. Bioaccumulative potential**

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

**12.4. Mobility in soil**

No data available.

**12.5. Results of PBT and vPvB assessment**

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

**12.6. Other adverse effects**

None known.

**SECTION 13: Disposal considerations**

**RCRA Hazardous waste ("P" and "U" list) (40 CFR 261)**

acetone;propan-2-one;propanone is listed with EPA Hazardous Waste Number: U002

**Specific labelling**

**Contaminated packing**

**SECTION 14: Transport information**

	14.1 UN / ID	14.2 UN PROPER SHIPPING NAME	14.3 HAZARD CLASS(ES)	14.4 PG*	14.5 ENV**	OTHER INFORMAT ION:
DOT	UN1210	PRINTING INK	Transport hazard class: 3 Label: 3 Classification code: F1 	II	No	Limited quantities: 5 L Tunnel restriction code: (D/E) See below

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2024)

	14.1 UN / ID	14.2 UN PROPER SHIPPING NAME	14.3 HAZARD CLASS(ES)	14.4 PG*	14.5 ENV**	OTHER INFORMAT ION:
						for additional information .
IMDG	UN1210	PRINTING INK	Transport hazard class: 3 Label: 3 Classification code: F1 	II	No	Limited quantities: 5 L EmS: F-E S- D See below for additional information .
IATA	UN1210	PRINTING INK	Transport hazard class: 3 Label: 3 Classification code: F1 	II	No	See below for additional information .

\* Packing group

\*\* Environmental hazards

### Additional information

This product is within scope of the regulations of transport of dangerous goods.

DOT / See § 172.101 Hazardous Materials Table for any information on special provisions, requirements, or warnings in connection with transport. See § 172.602, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.

IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

### 14.6. Special precautions for user

Not applicable.

### 14.7. Transport in bulk according to IMO instruments

No data available.

## SECTION 15: Regulatory information

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

#### 15.2. U.S. Federal regulations

TSCA (THE NON-  
CONFIDENTIAL PORTION)

ethanol;ethyl alcohol is listed  
acetone;propan-2-one;propanone is listed  
ammonia ....% is listed

CLEAN AIR ACT

None of the components are listed

EPCRA SECTION 302

None of the components are listed

EPCRA SECTION 304

None of the components are listed

EPCRA SECTION 313

ammonia ....% is listed

CERCLA

acetone;propan-2-one;propanone is regulated with a Reportable Quantity (RQ) of: 5000 pounds

HAZARDOUS CHEMICAL INVENTORY REPORTING  
 ammonia ....% is regulated with a Reportable Quantity (RQ) of: 1000 pounds  
 This product is subject to Tier II reporting.

**State regulations**

CALIFORNIA / PROP. 65  
 MASSACHUSETTS / RIGHT TO KNOW ACT  
 NEW JERSEY / RIGHT TO KNOW ACT  
 NEW YORK / RIGHT TO KNOW ACT  
 PENNSYLVANIA / RIGHT TO KNOW ACT

None of the components are listed  
 ethanol;ethyl alcohol is listed  
 acetone;propan-2-one;propanone is listed  
 ammonia ....% is listed  
 ethanol;ethyl alcohol / Substance number: 0844  
 ethanol;ethyl alcohol is on the Special Health Hazard Substance List  
 —  
 acetone;propan-2-one;propanone / Substance number: 0006  
 acetone;propan-2-one;propanone is on the Special Health Hazard Substance List  
 —  
 ammonia ....% / Substance number: 0103  
 ammonia ....% is on the Special Health Hazard Substance List  
 —  
 ethanol;ethyl alcohol is listed  
 ethanol;ethyl alcohol is regulated with a Treshold Reporting Quantity (TRQ) of: 0 pounds  
 —  
 acetone;propan-2-one;propanone is listed  
 acetone;propan-2-one;propanone is regulated with a Reportable Quantity (RQ) of: 5000 pounds  
 acetone;propan-2-one;propanone is regulated with a Treshold Reporting Quantity (TRQ) of: 10 pounds  
 —  
 ammonia ....% is listed  
 ammonia ....% is regulated with a Reportable Quantity (RQ) of: 1000 pounds  
 ammonia ....% is regulated with a Treshold Reporting Quantity (TRQ) of: 100 pounds  
 —  
 ethanol;ethyl alcohol is listed  
 —  
 acetone;propan-2-one;propanone is listed  
 acetone;propan-2-one;propanone is hazardous to the environment (E)  
 —  
 ammonia ....% is listed  
 ammonia ....% is hazardous to the environment (E)  
 —

**15.4. Restrictions for application**

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

**15.5. Demands for specific education**

No specific requirements.

**15.6. Additional information**

Not applicable.

**15.7. Chemical safety assessment**

No

**15.8. Sources**

OSHA Hazard Communication Standard (29 CFR 1910.1200)

**SECTION 16: Other information**

**Full text of H-phrases as mentioned in section 3**

- H225, Highly flammable liquid and vapour.
- H314, Causes severe skin burns and eye damage.
- H319, Causes serious eye irritation.
- H336, May cause drowsiness or dizziness.

Repeated exposure may cause skin dryness or cracking, Repeated exposure may cause skin dryness or cracking.

## The full text of identified uses as mentioned in section 1

None known.

## Abbreviations and acronyms

ACGIH = American Conference of Governmental Industrial Hygienists  
ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway  
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
CAS = Chemical Abstracts Service  
CERCLA = Comprehensive Environmental Response Compensation and Liability Act  
DOT = Department of Transportation  
EINECS = European Inventory of Existing Commercial chemical Substances  
EPCRA = Emergency Planning and Community Right-To-Know Act  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
HCIS = Hazardous Chemical Information System  
HNOC = Hazards Not Otherwise Classified  
IARC = International Agency for Research on Cancer  
IATA = International Air Transport Association  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
NFPA = National Fire Protection Association  
NIOSH = National Institute for Occupational Safety and Health  
OECD = Organisation for Economic Co-operation and Development  
OSHA = Occupational Safety and Health Administration  
PBT = Persistent, Bioaccumulative and Toxic  
RCRA = Resource Conservation and Recovery Act  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
RRN = REACH Registration Number  
SARA = Superfund Amendments and Reauthorization Act  
SCL = A specific concentration limit.  
STEL = Short-term exposure limits  
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure  
STOT-SE = Specific Target Organ Toxicity - Single Exposure  
TSCA = The Toxic Substances Control Act  
TWA = Time weighted average  
UN = United Nations  
UVBC = Unknown or variable composition, complex reaction products or of biological materials  
VOC = Volatile Organic Compound  
vPvB = Very Persistent and Very Bioaccumulative

## Additional information

The classification of the mixture in regard of health hazards is in accordance with the calculation methods given by HCS (29 CFR 1910.1200).

The classification of the mixture in regard to physical hazards has been based on experimental data.

## The safety data sheet is validated by

Else Super

## Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: US-en