

**1. Product and Company Identification**

**Product Name:** JP-K401ci  
**Company Name:** Hitachi Industrial Equipment & Solutions America, LLC  
2730 Greenleaf Avenue  
Elk Grove Village, IL 60007  
**Phone Number:** (866)583-0048  
**Web site address:** <https://www.hitachi-iesa.com/industrial-marking-and-coding>  
**Emergency Contact:** Chemtrec (800)424-9300  
**Information:** Christian Krzykwa (980)500-7144

**2. Hazards Identification****Flammable Liquids, Category 2****Serious Eye Damage/Eye Irritation, Category 2****Skin Corrosion/Irritation, Category 2****Specific Target Organ Toxicity (single exposure), Category 1****Specific Target Organ Toxicity (single exposure), Category 2****Specific Target Organ Toxicity (single exposure), Category 3****Specific Target Organ Toxicity (repeated exposure), Category 1****Aspiration Toxicity, Category 1****GHS Signal Word:****Danger****GHS Hazard Phrases:**

H225 - Highly flammable liquid and vapor.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H332 - Harmful if inhaled.

H302 - Harmful if swallowed.

H370 - Causes damage to organs kidneys

Causes respiratory irritation.

H372 - Causes damage to organs central &amp; peripheral nervous system through prolonged or repeated exposure.

**GHS Precautionary Phrases:** P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 - Keep container tightly closed.

P240 - Ground/bond container and receiving equipment.

P241 - Use explosion-proof electrical/ventilating/lighting/.../ equipment.

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge.

P260 - Do not breathe dust/fume/gas/mist/vapors/spray.

P264 - Wash hands thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P271 - Use only outdoors or in a well-ventilated area.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

**GHS Response Phrases:** P301+310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P331 - Do NOT induce vomiting.

P302+352 - IF ON SKIN: Wash with plenty of soap and water.

P363 - Wash contaminated clothing before reuse.  
 P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P307+311 - IF exposed: Call a POISON CENTER or doctor/physician.  
 P332+313 - If skin irritation occurs, get medical advice/attention.  
 P337+313 - If eye irritation persists, get medical advice/attention.  
 P370+378 - In case of fire, use dry chemical, CO2, water spray or foam to extinguish.  
 P403+235 - Store in cool & well-ventilated place. P405 - Store locked up.  
 P501 - Dispose of contents/container ...

**GHS Storage and Disposal Phrases:**

**Other Hazards:**

**Inhalation:**

Harmful to aquatic life with long lasting effects.  
 May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

**Skin Contact:**

May cause skin irritation.

**Eye Contact:**

Dust may cause mechanical irritation.

**Ingestion:**

May cause eye irritation.

May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated.

**3. Composition/Information on Ingredients**

CAS #	Hazardous Components (Chemical Name)	Concentration
78-93-3	Methyl ethyl ketone	60.0 -75.0 %
NA	Proprietary chrome complex	5.0 -10.0 %
67-56-1	Methanol	5.0 -10.0 %

**4. First Aid Measures**

**Emergency and First Aid**

**Procedures:**

**In Case of Inhalation:**

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**In Case of Skin Contact:**

Wash clothing before reuse.

Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**In Case of Eye Contact:**

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**In Case of Ingestion:**

Get medical aid immediately.

If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person.

**Note to Physician:**

Treat symptomatically and supportively.

## 5. Fire Fighting Measures

**Flash Pt:** -5.60 C (21.9 F) Method Used: TAG Closed Cup  
**Explosive Limits:** LEL: No data. UEL: No data.  
**Autoignition Pt:** 404.00 C (759.2 F)  
**Suitable Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Fire Fighting Instructions:** During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

**Flammable Properties and Hazards:** No data available.

**Hazardous Combustion Products:** No data available.

## 6. Accidental Release Measures

**Steps To Be Taken In Case Material Is Released Or Spilled:** Provide ventilation.

Use proper personal protective equipment as indicated in Section 8.  
 Spills/Leaks: Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions.

## 7. Handling and Storage

**Precautions To Be Taken in Handling:** Avoid ingestion and inhalation.

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed.

**Precautions To Be Taken in Storing:** Keep container closed when not in use. Store in a tightly closed container. Store tightly closed in a cool, dry, well-ventilated area away from incompatible substances.

## 8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
78-93-3	Methyl ethyl ketone	PEL: 200 ppm	TLV: 200 ppm STEL: 300 ppm	No data.
NA	Proprietary chrome complex	No data.	No data.	No data.
67-56-1	Methanol	PEL: 200 ppm	TLV: 200 ppm STEL: 250 ppm	No data.

<b>Respiratory Equipment (Specify Type):</b>	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
<b>Eye Protection:</b>	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
<b>Protective Gloves:</b>	Wear appropriate protective gloves to prevent skin exposure.
<b>Other Protective Clothing:</b>	Wear appropriate protective clothing to prevent skin exposure.
<b>Engineering Controls (Ventilation etc.):</b>	Use adequate ventilation to keep airborne concentrations low.

## 9. Physical and Chemical Properties

<b>Physical States:</b>	[ ] Gas [ X ] Liquid [ ] Solid
<b>Appearance and Odor:</b>	No data available.
<b>pH:</b>	No data.
<b>Melting Point:</b>	-87.00 C (-124.6 F)
<b>Boiling Point:</b>	80.00 C (176.0 F)
<b>Flash Pt:</b>	-5.60 C (21.9 F) Method Used: TAG Closed Cup
<b>Evaporation Rate:</b>	No data.
<b>Flammability (solid, gas):</b>	No data available.
<b>Explosive Limits:</b>	LEL: No data. UEL: No data.
<b>Vapor Pressure (vs. Air or mm Hg):</b>	10.5 PSI at 20.0 C (68.0 F)
	No data.
<b>Vapor Density (vs. Air = 1):</b>	2.41
<b>Specific Gravity (Water = 1):</b>	No data.
<b>Density:</b>	0.8050 g/mL
<b>Solubility in Water:</b>	29g/100ml
<b>Saturated Vapor Concentration:</b>	No data.
<b>Octanol/Water Partition Coefficient:</b>	No data.
<b>Autoignition Pt:</b>	404.00 C (759.2 F)
<b>Decomposition Temperature:</b>	No data.
<b>Viscosity:</b>	No data.

**Information with regard to primary physical hazard:**

**10. Stability and Reactivity**

<b>Stability:</b>	Unstable [ ]    Stable [ X ]
<b>Conditions To Avoid - Instability:</b>	Incompatible materials, dust generation, Strong oxidants.
<b>Incompatibility - Materials To Avoid:</b>	Oxidizing agents.
<b>Hazardous Decomposition or Byproducts:</b>	Carbon monoxide, irritating and toxic fumes and gases, Carbon dioxide.
<b>Possibility of Hazardous Reactions:</b>	Will occur [ ]    Will not occur [ X ]
<b>Conditions To Avoid - Hazardous Reactions:</b>	No data available.

**11. Toxicological Information**

<b>Toxicological Information:</b>	Neurotoxicity: Teratogenicity: No information available. Reproductive Effects: No information available. Mutagenicity: No information available. No information available. Other Studies:
	 CAS# 78-93-3: 1. Acute toxicity, TCLo, Inhalation, Human, 100.0 PPM, 5 M. Result: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Olfaction:Other changes. Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Conjunctive irritation. Lungs, Thorax, or Respiration:Other changes. - Journal of Industrial Hygiene and Toxicology, Vol/p/yr: 25,282, 1943  2. Acute toxicity, LD50, Oral, Mouse, 4050. MG/KG. Result: Behavioral: Sleep. Behavioral: Headache. Gastrointestinal:Nausea or vomiting. - Toxicology Letters., Elsevier Science Pub. B.V., POB 211, 1000 AE, Amsterdam 1000 AE Netherlands, Vol/p/yr: 30,13, 1986  3. Acute toxicity, LC50, Inhalation, Mouse, 32.00 GM/M3, 4 H. Result: Gastrointestinal: Alteration in gastric secretion. Gastrointestinal:Other changes. - Current Toxicology, Nova Science Publishers, Inc., 6080 Jericho Turnpike, Suite 207, Commack, NY 11725, Vol/p/yr: 1,47, 1993  4. Acute toxicity, LD50, Intraperitoneal, Mouse, 616.0 MG/KG. Result: Behavioral: Change in motor activity (specific assay). Behavioral: Ataxia. Behavioral: Antipsychotic.

- Shell Chemical Company. Unpublished Report., Vol/p/yr: -,6, 1961

5. Acute toxicity, LD50, Skin, Species: Rabbit, 6480. MG/KG.

Result:

Behavioral: Hallucinations, distorted perceptions.

Endocrine: Effect on menstrual cycle.

- Shell Chemical Company., Vol/p/yr: MSDS-5390-,

6. Acute toxicity, TClO, Inhalation, Human, 10.00 ppm.

Result:

Cardiac: Pulse rate decreased with fall in BP.

Lungs, Thorax, or Respiration: Other changes.

- Neurotoxicology., Intox Press, Inc., POB 34075, Little Rock, AR 72203, Vol/p/yr:

24,179, 2003

7. Acute toxicity, LC50, Inhalation, Mouse, 32.00 mg/m3.

Result:

Liver: Fatty liver degeneration.

8. Standard Draize Test, Eyes, Human, 350.0 PPM.

Result:

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria.

Gastrointestinal: Tumors.

Liver: Tumors.

- Journal of Industrial Hygiene and Toxicology, Vol/p/yr: 25,282, 1943

9. Standard Draize Test, Skin, Species: Rabbit, 500.0 MG, 24 H.

Result:

Behavioral: Ataxia.

Lungs, Thorax, or Respiration: Dyspnea.

Gastrointestinal: Hypermotility, diarrhea.

- Journal of Industrial Hygiene and Toxicology, Vol/p/yr: 25,282, 1943

CAS# 67-56-1:

1. Reproductive Effects: , TClO, Inhalation, Rat, 20000. PPM, 7 H, female 7-15 day(s) after conception.

Result:

Specific Developmental Abnormalities: Musculoskeletal system.

Specific Developmental Abnormalities: Endocrine system.

- Fundamental and Applied Toxicology., Academic Press, Inc., 1 E. First St., Duluth, MN 55802, Vol/p/yr: 5,727, 1985

2. Reproductive Effects: , TDLo, Oral, Mouse, 40.00 GM/KG, female 6-15 day(s) after conception.

Result:

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Specific Developmental Abnormalities: Craniofacial (including nose and tongue).

- Teratology, The International Journal of Abnormal Development, Alan R. Liss, Inc., 41 E. 11th St., New York, NY 10003, Vol/p/yr: 47,175, 1993

3. Reproductive Effects: , TClO, Inhalation, Mouse, 1500. PPM, 6 H, female 7-9 day(s) after conception.

Result:

Specific Developmental Abnormalities: Central nervous system.

- Toxicologist., Soc. of Toxicology, Inc., 475 Wolf Ledge Parkway, Akron, OH 44311,  
Vol/p/yr: 12,101, 1992

4. Reproductive Effects: , TDLo, Intraperitoneal, Mouse, 3400. mg/kg, 7 day pregnant.  
Result:

Specific Developmental Abnormalities: Musculoskeletal system.

5. Mutagenicity:, Mutation test: Cytogenetic analysis., Oral, Mouse, 1.000 GM/KG.  
Result:

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Specific Developmental Abnormalities: Musculoskeletal system.

- Environmental Mutagenesis., For publisher information, see EMMUEG, New York, NY,  
Vol/p/yr: 4,317, 1982

6. Acute toxicity, TDLo, Oral, Human, 3429. MG/KG.

Result:

Sense Organs and Special Senses (Nose, Eye, Ear, and Taste): Eye: Visual field  
changes.

- Acta Medica Scandinavica., Almquist & Wiksell, Stockholm Sweden, Vol/p/yr: 212,5,  
1982

7. Acute toxicity, TCLo, Inhalation, Human, 86000. MG/M3.

Result:

Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Lacrimation.

Lungs, Thorax, or Respiration: Cough.

Lungs, Thorax, or Respiration:Other changes.

- Archiv fuer Gewerbepathologie und Gewerbehygiene., For publisher information, see  
IAEHDW, Berlin Germany, Vol/p/yr: 5,1, 1933

8. Acute toxicity, LDLO, Route of Application: Unreported., Human, 868.0 MG/KG.

Result:

Gastrointestinal:Nausea or vomiting.

Behavioral: Muscle weakness.

- Poisoning; Toxicology, Symptoms, Treatments, 2nd ed., Arena, J.M., C.C. Thomas,  
Springfield, IL, Vol/p/yr: 2,73, 1970

9. Acute toxicity, LD50, Oral, Mouse, 7300. MG/KG.

Result:

Vascular:Other changes.

- Toxicology., Elsevier Scientific Pub. Ireland, Ltd., POB 85, Limerick Ireland, Vol/p/yr:  
25,271, 1982

10. Acute toxicity, LCLO, Inhalation, Mouse, 50.00 GM/M3, 2 H.

Result:

Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels:

Cytochrome oxidases (including oxidative phosphorylation).

- Toxicometric Parameters of Industrial Toxic Chemicals Under Single Exposure,  
Izmerov, N.F., et al., Centre of International Projects, GKNT, Moscow Russia, Vol/p/yr:  
-,80, 1982

11. Standard Draize Test, Skin, Species: Rabbit, 20.00 MG, 24 H.

Result:

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria.  
Gastrointestinal: Tumors.  
Liver: Tumors.  
- Prehled Prumyslove Toxikologie, Marhold, J., Organicke Latky, Prague  
Czechoslovakia, Vol/p/yr: -, 187, 1986

12. Standard Draize Test, Eyes, Species: Rabbit, 40.00 MG.  
Result:  
Behavioral: Ataxia.  
Lungs, Thorax, or Respiration: Dyspnea.  
Gastrointestinal: Hypermotility, diarrhea.  
- Union Carbide Data Sheet, Union Carbide Corp., 39 Old Ridgebury Rd., Danbury, CT  
06817, Vol/p/yr: 3/24, 1970

13. LC50, Food, Insect: Drosophila., 40.122 - 46.477 PPTH Food, 72 H.  
Measurement: Mortality, Trend: Increasing, Effect: Mortality.  
Result:  
Specific Developmental Abnormalities: Craniofacial (including nose and tongue).  
- The Involvement of Several Enzymes in Methanol Detoxification in Drosophila  
melanogaster Adults, Wang, S.P., X.X. Hu, Q.W. Meng, S.A. Muhammad, R.R. Chen, F.  
Li, and G.Q. Li, 2013

**Carcinogenicity/Other  
Information:**

CAS# 124-83-4: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
78-93-3	Methyl ethyl ketone	n.a.	n.a.	n.a.	n.a.
NA	Proprietary chrome complex	n.a.	n.a.	n.a.	n.a.
67-56-1	Methanol	n.a.	n.a.	n.a.	n.a.

**12. Ecological Information**

**General Ecological  
Information:** Environmental: No information available.  
Physical: No information available.  
Other: Do not empty into drains.

**13. Disposal Considerations**

**Waste Disposal Method:** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.  
RCRA P-Series: None listed.  
RCRA U-Series: None listed.

**14. Transport Information**



**LAND TRANSPORT (US DOT):**

**DOT Proper Shipping Name:** Printing ink.  
**DOT Hazard Class:** 3 FLAMMABLE LIQUID  
**UN/NA Number:** UN1210 **Packing Group:** III



**LAND TRANSPORT (Canadian TDG):**

**TDG Shipping Name:** Printing ink.  
**UN Number:** UN1210 **Packing Group:** III  
**Hazard Class:** 3 - FLAMMABLE LIQUID **TDG Classification:**

**AIR TRANSPORT (ICAO/IATA):**

**ICAO/IATA Shipping Name:** Printing ink.  
**UN Number:** UN1210 **Packing Group:** III  
**Hazard Class:** 3 - FLAMMABLE LIQUID

**15. Regulatory Information**

**EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists**

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
78-93-3	Methyl ethyl ketone	No	Yes NA	No
NA	Proprietary chrome complex	No	No	No
67-56-1	Methanol	No	Yes NA	Yes

**This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:**

<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Explosive	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Acute toxicity (any route of exposure)
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Flammable (gases, aerosols, liquid, or solid)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Skin Corrosion or Irritation
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Oxidizer (liquid, solid or gas)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Serious eye damage or eye irritation
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Self-reactive	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Respiratory or Skin Sensitization
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Pyrophoric (liquid or solid)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Germ cell mutagenicity
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Pyrophoric gas	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Carcinogenicity
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Self-heating	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Reproductive toxicity
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Organic peroxide	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Specific target organ toxicity (single or repeated exposure)
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Corrosive to metal	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Aspiration Hazard
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Gas under pressure (compressed gas)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Simple Asphyxiant
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	In contact with water emits flammable gas	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	(Health) Hazard Not Otherwise Classified (HNOC)
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Combustible Dust		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	(Physical) Hazard Not Otherwise Classified (HNOC)		

**California Proposition 65**



**WARNING**

This product can expose you to chemicals including Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
78-93-3	Methyl ethyl ketone	TSCA: Inventory CA TAC, Title 8: TAC: Cat. IIa, Title 8 NC TAP: Yes: NC TAP
NA	Proprietary chrome complex	
67-56-1	Methanol	TSCA: Inventory CA PROP.65: Yes: RDTox. CA TAC, Title 8: TAC: Cat. IIa, Title 8 NC TAP: Yes: US HAP

CAS #	Hazardous Components (Chemical Name)
78-93-3	Methyl ethyl ketone
NA	Proprietary chrome complex
67-56-1	Methanol

**International Regulatory Lists**

Mexico INSQ: 1193  
 Japan ENCS: 2-542  
 Germany WHCS: 150: WGK 1  
 Switzerland Giftliste 1: G-2429  
 REACH: 01-2119457290-43: Full, (P)  
 REACH: (P)  
 Japan ENCS: 7-322  
 Israel HSL: Cat.  
 Germany WHCS: 145: WGK 1  
 Switzerland Giftliste 1: G-2063  
 REACH: 01-2119433307-44: Full, (P)

**16. Other Information**

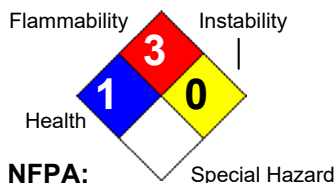
**Revision Date:** 11/22/2022 **Previous revision:** 03/06/2019

**Hazard Rating System:**

<b>HEALTH</b>		<b>1</b>
<b>FLAMMABILITY</b>		<b>3</b>
<b>PHYSICAL</b>		<b>0</b>
<b>PPE</b>		<b>B</b>

**HMIS:**

**Previous revision:** 03/06/2019



**NFPA:**

**Additional Information About This Product:** To the best of our knowledge, the information contained here in is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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