

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/04/2022

Reviewed on 11/04/2022

1 Identification

- **Product identifier**
- **Trade name:** KMS HAIR STAY Firm Finishing Hairspray [75ml; 300ml]
- **Article number / Bulk number** 142070; 142071
- **Product category** PC39 Cosmetics, personal care products
- **Application of the substance / the mixture** Hair cosmetics
- **Manufacturer/Supplier:**
Kao USA Inc.
2535 Spring Grove Avenue
Cincinnati, Ohio 45214 / USA
KaoGermanySDS@kao.com
- **Information department:** CHEMTREC
- **Emergency telephone number:**
CHEMTREC (US): (0800) 424-9300
CHEMTREC (Outside US): +1 (703) 527-3887 (24h)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Flammable Aerosols 1 H222 Extremely flammable aerosol.
Gases under Pressure - Compressed gas H280 Contains gas under pressure; may explode if heated.

- **Label elements**
- **Hazard pictograms**



GHS02 GHS04

- **Signal word** Danger
- **Hazard statements**
H222 Extremely flammable aerosol.
H280 Contains gas under pressure; may explode if heated.
- **Precautionary statements**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Pressurized container: Do not pierce or burn, even after use.
P410+P403 Protect from sunlight. Store in a well-ventilated place.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 0
Fire = 4
Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



HEALTH 0 Health = 3
FIRE 4 Fire = 0
REACTIVITY 0 Reactivity = 0

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- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 64-17-5	Ethanol ⚠ Flammable Liquids 2, H225	30-50%
CAS: 115-10-6	Dimethyl Ether ⚠ Flammable Gases 1, H220 ⚠ Gases under Pressure - Compressed gas, H280 ⚠ Acute Toxicity - Inhalation 2, H330	10-15%
CAS: 67-63-0	Isopropanol ⚠ Flammable Liquids 2, H225 ⚠ Eye Irritation 2A, H319; Specific Target Organ Toxicity - Single Exposure 3, H336	≥2.5-<10%

4 First-aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Immediately rinse with water.
Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:** Treat symptomatically.
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
Vapors can form a highly flammable mixture with air
There is an overpressure. Fire or strong heat can cause violent rupture of packing.
Hazardous thermal decomposition products:
Hydrogen fluoride; fluorinated ingredients, carbon oxides,
Inhalation of decomposition products can cause health damage.

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- **Advice for firefighters**
- **Protective equipment:**
Mouth respiratory protective device.
Do not inhale explosion gases or combustion gases.
Wear fully protective suit.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to penetrate the ground/soil.
- **Methods and material for containment and cleaning up:**
Dispose of the collected material according to regulations.
- **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 disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:**
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store only in the original receptacle.
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

CAS: 64-17-5 Ethanol

TLV	Short-term value: 1000 ppm
	A3

CAS: 115-10-6 Dimethyl Ether

WEEL	Long-term value: 1000 ppm
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CAS: 67-63-0 Isopropanol

PEL	Long-term value: 980 mg/m ³ , 400 ppm
REL	Short-term value: 1225 mg/m ³ , 500 ppm Long-term value: 980 mg/m ³ , 400 ppm
TLV	Short-term value: 400 ppm Long-term value: 200 ppm BEI, A4

· **Ingredients with biological limit values:**

CAS: 67-63-0 Isopropanol

BEI	40 mg/L Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)
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· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Wash hands before breaks and at the end of work.
Avoid contact with the eyes.

· **Breathing equipment:** Not required.

· **Protection of hands:**



Protective gloves

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

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Material of gloves**

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Goggles recommended during refilling.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Aerosol
Color:	Colorless
Odor:	Characteristic

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· Odor threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Not applicable, as aerosol.
· Flash point:	Not applicable, as aerosol.
· Flammability (solid, gaseous):	Not applicable.
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Vapor pressure at 20 °C (68 °F):	5,200 hPa (3.900 mm Hg)
· Density at 20 °C (68 °F):	0.8487 g/cm ³ (7.0824 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity: Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content: Organic solvents:	49.4 %
Water:	2.6 %
VOC content:	49.43 %
Solids content:	16.8 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** Extremely flammable gas. Hazardous polymerization does not take place.
- **Chemical stability** The product is stable under standard conditions.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** Vapors can form a highly flammable mixture with air.
- **Conditions to avoid**
Material is stable. Avoid open flames and high temperatures
No further relevant information available.
- **Incompatible materials:** Alkali metals, Alkaline earth metals, Powdered metals, powdered metal salts
- **Hazardous decomposition products:**
Decomposition products are hazardous. This material can be decomposed by high temperatures (open flames, glowing metal surfaces, etc.) forming hydrofluoric acid and possibly carbonyl fluoride.

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11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

CAS: 115-10-6 Dimethyl Ether

Inhalative LC50/4 h 308 mg/l (rat)

- **Primary irritant effect:**

- **on the skin:** No irritant effect.

- **on the eye:** No irritating effect.

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

CAS: 64-17-5	Ethanol	1
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CAS: 67-63-0	Isopropanol	3
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- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **Persistence and degradability:** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential:** No further relevant information available.

- **Mobility in soil:** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects:** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:** Smaller quantities can be disposed of with household waste.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

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· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

<ul style="list-style-type: none"> · UN-Number · DOT, ADR/RID/ADN, IMDG, IATA 	UN1950
<ul style="list-style-type: none"> · UN proper shipping name · DOT · IMDG · IATA 	<ul style="list-style-type: none"> Aerosols, flammable AEROSOLS AEROSOLS, flammable
<ul style="list-style-type: none"> · Transport hazard class(es) · DOT 	<div style="text-align: center;">  </div>
<ul style="list-style-type: none"> · Class · Label 	<ul style="list-style-type: none"> 2.1 Gases 2.1
<ul style="list-style-type: none"> · ADR/RID/ADN 	<div style="text-align: center;">  </div>
<ul style="list-style-type: none"> · Class · Label 	<ul style="list-style-type: none"> 2 5F Gases 2.1
<ul style="list-style-type: none"> · IMDG, IATA 	<div style="text-align: center;">  </div>
<ul style="list-style-type: none"> · Class · Label 	<ul style="list-style-type: none"> 2.1 Gases 2.1
<ul style="list-style-type: none"> · Packing group · DOT, ADR/RID/ADN, IMDG, IATA 	<ul style="list-style-type: none"> Void
<ul style="list-style-type: none"> · Environmental hazards: 	<ul style="list-style-type: none"> Not applicable.
<ul style="list-style-type: none"> · Special precautions for user · Hazard identification number (Kemler code): - · EMS Number: · Stowage Code 	<ul style="list-style-type: none"> Warning: Gases F-D,S-U SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
<ul style="list-style-type: none"> · Segregation Code 	<ul style="list-style-type: none"> SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre:

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	Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 75 kg On cargo aircraft only: 150 kg
· ADR/RID/ADN	
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 1950 AEROSOLS, 2.1

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.

- **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**

CAS: 67-63-0 | Isopropanol

CAS: 75-65-0 | t-Butyl Alcohol

- **TSCA (Toxic Substances Control Act):**

All components have the value ACTIVE.

- **Hazardous Air Pollutants**

None of the ingredients is listed.

- **Chemicals known to cause cancer:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**

CAS: 64-17-5 | Ethanol

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· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value)**

CAS: 64-17-5	Ethanol	A3
CAS: 67-63-0	Isopropanol	A4
CAS: 75-65-0	t-Butyl Alcohol	A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H220 Extremely flammable gas.
 H225 Highly flammable liquid and vapor.
 H280 Contains gas under pressure; may explode if heated.
 H319 Causes serious eye irritation.
 H330 Fatal if inhaled.
 H336 May cause drowsiness or dizziness.

· **Department issuing SDS:** Regulatory Affairs

· **Date of preparation / last revision** 11/04/2022

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 NIOSH: National Institute for Occupational Safety
 OSHA: Occupational Safety & Health
 TLV: Threshold Limit Value
 PEL: Permissible Exposure Limit
 REL: Recommended Exposure Limit
 BEI: Biological Exposure Limit
 Flammable Gases 1: Flammable gases – Category 1
 Flammable Aerosols 1: Aerosols – Category 1
 Gases under Pressure - Compressed gas: Gases under pressure – Compressed gas
 Flammable Liquids 2: Flammable liquids – Category 2
 Acute Toxicity - Inhalation 2: Acute toxicity – Category 2
 Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A
 Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

· * **Data compared to the previous version altered.**