

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/12/2016

Reviewed on 10/12/2016

1 Identification

- **Product identifier**
- **Trade name:** *KMS Hair Stay Firm Finishing Hairspray*
- **Article number:** 142070 - 75ml / 142071 - 300ml
- **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): (800)424-9300
CHEMTREC (Outside US): +1 (703) 527-3887 (24h)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Flam. Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurized container: May burst if heated.
Skin Sens. 1 H317 May cause an allergic skin reaction.

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



GHS02 GHS07

- **Signal word** *Danger*
- **Hazard-determining components of labeling:**
Fragrance
- **Hazard statements**
H222-H229 Extremely flammable aerosol. Pressurized container: May burst if heated.
H317 May cause an allergic skin reaction.
- **Precautionary statements**
P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 0
Fire = 4
Reactivity = 3

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



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

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

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· **vPvB:** Not applicable.

3 Composition/information on ingredients

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

· **Dangerous components:**

CAS: 75-37-6	1,1-difluoroethane	⚠ Press. Gas, H280	25-50%
CAS: 64-17-5	ethanol	⚠ Flam. Liq. 2, H225	25-50%
CAS: 115-10-6	dimethyl ether	⚠ Flam. Gas 1, H220 ⚠ Press. Gas, H280	10-30%
CAS: 67-63-0	isopropyl alcohol	⚠ Flam. Liq. 2, H225 ⚠ Eye Irrit. 2A, H319; STOT SE 3, H336	2.5-<10%
	Fragrance	⚠ Asp. Tox. 1, H304 ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317 ⚠ Flam. Liq. 4, H227	0.2-0.7%

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **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:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture**
No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.

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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:**
Do not spray on a naked flame or any incandescent material.
Keep ignition sources away - Do not smoke.
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:**
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **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:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

CAS: 64-17-5 ethanol (25-50%)

PEL	Long-term value: 1900 mg/m ³ , 1000 ppm
REL	Long-term value: 1900 mg/m ³ , 1000 ppm
TLV	Short-term value: 1880 mg/m ³ , 1000 ppm

CAS: 115-10-6 dimethyl ether (10-30%)

WEEL	Long-term value: 1000 ppm
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CAS: 67-63-0 isopropyl alcohol (2.5-<10%)

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: 984 mg/m ³ , 400 ppm Long-term value: 492 mg/m ³ , 200 ppm BEI

- **Ingredients with biological limit values:**

CAS: 67-63-0 isopropyl alcohol (2.5-<10%)

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:**
Immediately remove all soiled and contaminated clothing.

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Wash hands before breaks and at the end of work.

• **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Use suitable respiratory protective device in case of insufficient ventilation.

• **Protection of hands:**



Not required under normal conditions. The details concerned are recommendations.

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

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. - Please contact the glove supplier for further information.

• **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:**



Not required under normal conditions

If there is a risk of splashing: safety glasses

9 Physical and chemical properties

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

• **General Information**

• **Appearance:**

Form:

Liquid

Color:

Colorless

• **Odor:**

Characteristic

• **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:**

13 °C (55 °F)

• **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):**

5200 hPa (3900 mm Hg)

• **Density at 20 °C (68 °F):**

0.8464 g/cm³ (7.063 lbs/gal)

• **Relative density**

Not determined.

• **Vapor density**

Not determined.

• **Evaporation rate**

Not applicable.

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- | | |
|---|--|
| · Solubility in / Miscibility with Water: | Not miscible or difficult to mix. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Solvent content: | |
| Organic solvents: | 53.5 % |
| Water: | 2.6 % |
| VOC content: | 53.5 % |
| | 453.9 g/l / 3.79 lb/gl |
| · Solids content: | 15.4 % |
| · Other information | No further relevant information available. |

10 Stability and reactivity

- **Reactivity** No dangerous reactions known if used as directed.
- **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** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

- **Carcinogenic categories**

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

CAS: 64-17-5	ethanol	1
CAS: 67-63-0	isopropyl alcohol	3
CAS: 5989-27-5	(R)-p-mentha-1,8-diene	3

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

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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.
 Danger to drinking water if even small quantities leak into the ground.
- **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:**
 Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|--|--|
| <ul style="list-style-type: none"> · UN-Number · DOT, IMDG, IATA | <p>UN1950</p> |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT · IMDG · IATA | <p>Aerosols, flammable
 AEROSOLS
 AEROSOLS, flammable</p> |
| <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 | <p>2.1
 2.1</p> |
| <ul style="list-style-type: none"> · IMDG, IATA | <div style="text-align: center;">  </div> |
| <ul style="list-style-type: none"> · Class · Label | <p>2.1
 2.1</p> |

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<ul style="list-style-type: none"> · Packing group · DOT, IMDG, IATA 	-
· Environmental hazards:	Not applicable.
<ul style="list-style-type: none"> · Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Code 	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.
· Segregation Code	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: 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:	
<ul style="list-style-type: none"> · DOT · Quantity limitations 	On passenger aircraft/rail: 75 kg On cargo aircraft only: 150 kg
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	1L 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**
- **Sara**

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

None of the ingredients is listed.

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

CAS: 67-63-0 isopropyl alcohol

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

All ingredients are listed.

· **Proposition 65**

· **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.

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· 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 established by ACGIH)

CAS: 64-17-5	ethanol	A3
CAS: 67-63-0	isopropyl 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.

H227 Combustible liquid.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

· Department issuing SDS: Regulatory Affairs
· Date of preparation / last revision 10/12/2016 / -
· Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

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)

NFFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

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

Flam. Gas 1: Flammable gases – Category 1

Flam. Aerosol 1: Aerosols – Category 1

Press. Gas: Gases under pressure – Compressed gas

Press. Gas: Gases under pressure – Liquefied gas

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 4: Flammable liquids – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Asp. Tox. 1: Aspiration hazard – Category 1

· * Data compared to the previous version altered.