

70324 Z

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 11/15/2004

Reviewed on 11/15/2004

1 Identification of substance

Trade name: ALUMINUM HI-TEMP
Product code: 010302
Manufacturer/Supplier: Design Engineering
604 Moore Road
Avon Lake, OH 44012
phone: 440-934-0800



Information department: Health & Safety Department
Emergency information: CHEMTEL 1-800-255-3924, 813-248-0585 if located outside the U.S.

2 Composition/Data on components

Chemical Description: This product is a mixture of the substances listed below with nonhazardous additions.

Dangerous components:

108-88-3	toluene	R Xn, R F; R 11-20	23.75%
67-64-1	acetone	R Xi, R F; R 11-36-66-67	21.62%
74-98-6	propane	R F+; R 12	18.91%
106-97-8	n-butane	R F+; R 12	11.11%
7727-43-7	barium sulphate, natural	R Xi; R 37	5.47%
64742-89-8	VM&P Naptha	R Xn; R 20/22	4.54%
7429-90-5	Aluminum flake	R Xi; R 37	3.03%
1330-20-7	xylene (mix)	R Xn; R 10-20/21-38	1.23%

Additional information: For the wording of the listed risk phrases refer to section 3.

3 Hazards identification**Hazard description:**

R Xn Harmful
R F+ Extremely flammable

Physical dangers:

Warning! Pressurized container. Keep away from heat, sparks, and flame.
R 12 Extremely flammable.
R 20 Harmful by inhalation.
R 36 Irritating to eyes.
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.
Keep out of the reach of children.

Effects of short-term overexposure:

Causes irritation to the eyes, nose, throat, skin, and central nervous system. Symptoms may include dizziness, throat irritation, headache, fatigue, swelling of eyes, and nausea. Harmful or fatal if swallowed.

Effects of chronic overexposure:

May cause permanent brain and nervous system damage. Repeated overexposure can also damage kidneys, lungs, liver, heart, and blood. Intentional misuse by deliberately inhaling the contents may be harmful or fatal.

NFPA ratings (scale 0 - 4): The substance demonstrates unusual reactivity with water.

Health = 1
Fire = 4
Reactivity = 3

HMIS-ratings (scale 0 - 4): Health = 1

Fire = 4
Physical Hazard = 3

4 First aid measures**General information:**

Symptoms of poisoning may occur even after several hours. Medical observation for at least 48 hours after the accident is recommended.

After inhalation:

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

After skin contact:

Remove contaminated clothing. Wash exposed area with soap and water.

After eye contact:

Move to fresh air. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

Contact physician or poison control center.

5 Fire fighting measures**Extinguishing agents:**

CO2, sand, extinguishing powder, or water spray. Fight larger fires with water spray or alcohol resistant foam.

(Contd. on page 2)

USA

70324 E

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 11/15/2004

Reviewed on 11/15/2004

Trade name: ALUMINUM HI-TEMP**Protective equipment:** A respiratory protective device may be necessary.

(Contd. of page 1)

6 Accidental release measures**Personal safety****precautions:**

Wear protective equipment. Keep unprotected persons away.

Environmental safety**precautions:**

Do not allow product to reach sewage systems or ground water.

Inform appropriate authorities in case of seepage into water course or sewage system.

**Measures for cleaning/
collecting:**

Do not flush with water or aqueous cleansing agents. Use diluted caustic solution. Soak up spills with inert absorbent material. Refer to section 13 for disposal information.

7 Handling and storage**Fire/explosion protection:** Do not spray on a naked flame or any incandescent material.

Do not smoke. Protect from electrostatic charges.

Storage requirements:

Observe pressurized container storage regulations. Consult with your local authorities.

Keep away from sources of heat and direct sunlight. Do not warehouse in subfreezing conditions.

8 Exposure controls and personal protection:**Components with limit values that require monitoring at the workplace:****108-88-3 toluene**

PEL	Short-term value: C 300; 500* ppm Long-term value: 200 ppm *10-min peak per 8-hr shift
REL	Short-term value: 560 mg/m ³ , 150 ppm Long-term value: 375 mg/m ³ , 100 ppm
TLV	188 mg/m ³ , 50 ppm Skin; BEI

67-64-1 acetone

PEL	2400 mg/m ³ , 1000 ppm
REL	590 mg/m ³ , 250 ppm
TLV	Short-term value: 1782 mg/m ³ , 750 ppm Long-term value: 1188 mg/m ³ , 500 ppm BEI

74-98-6 propane

PEL	1800 mg/m ³ , 1000 ppm
REL	1800 mg/m ³ , 1000 ppm
TLV	(4508) mg/m ³ , (2500) ppm

106-97-8 n-butane

REL	1900 mg/m ³ , 800 ppm
TLV	1900 mg/m ³ , 800 ppm

7727-43-7 barium sulphate, natural

PEL	15*; 5** mg/m ³ *Total dust **Respirable fraction
REL	10*; 5** mg/m ³ *Total dust **Respirable fraction
TLV	10 mg/m ³ (e)

7429-90-5 Aluminum flake

PEL	15*; 5** mg/m ³ *Total dust **Respirable fraction
REL	10*; 5** mg/m ³ Metal dust; *Total dust **Respirable fraction
TLV	10 mg/m ³ Metal dust

(Contd. on page 3)

USA

703242

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 11/15/2004

Reviewed on 11/15/2004

Trade name: ALUMINUM HI-TEMP

(Contd. of page 2)

1330-20-7 xylene (mix)

PEL	435 mg/m ³ , 100 ppm
REL	Short-term value: 655 mg/m ³ , 150 ppm Long-term value: 435 mg/m ³ , 100 ppm (o-, m-, & p-isomers)
TLV	Short-term value: 651 mg/m ³ , 150 ppm Long-term value: 434 mg/m ³ , 100 ppm
BEI	

Protective hygienic measures:

Keep away from foodstuffs and animal feed. Wash hands after use.

Breathing equipment:

A respirator is generally not necessary when using this product outdoors or in large open areas. In cases of inadequate ventilation, a respiratory protective device should be worn to prevent overexposure.

Protection of hands:

Protective gloves. The glove material has to be impermeable and resistant to the substance. No glove recommendation can be given.

Eye protection:

Tightly sealed goggles

9 Physical and chemical properties:**General Information:**

Form:	Aerosol
Color:	According to trade name description in section 1.
Odor:	Solvent
Boiling point/Boiling range:	-44°C (-47°F)

Flash point: -19°C (-2°F)**Ignition temperature:** 365.0°C (689°F)**Auto igniting:** Product is not self-igniting.**Danger of explosion:** Stable at normal temperatures. Can may burst when exposed to temperatures exceeding 120 degrees fahrenheit.
In use, may form flammable/explosive vapour-air mixture.**Lower Explosion Limit:** 1.2 Vol %**Upper Explosion Limit:** 13.0 Vol %**Vapor Pressure:** 40 PSI, 2750 hPa**Density:** Not determined.**Specific Gravity:** Between 0.77 and 0.90 (Water equals 1.00)**VOC content:** 0.61 kg/l / 5.12 lb/gl**VOC in weight percent (less acetone):** 61.4 %**Solids content:** 16.9 %**10 Stability and reactivity:****Conditions to be avoided:** Do not allow the can to exceed 120 degrees Fahrenheit. Stable at normal temperatures.**Possibility of Hazardous Reactions:**

No dangerous reactions known.

11 Toxicological information:**Primary effect on the skin:** No irritant effect.**Primary effect on the eye:** Irritating effect.**Sensitization:** No sensitizing effects known.**Additional toxicological information:**

Harmful

12 Ecological information**Other information:** This product does not contain any chloroflourocarbons (cfc's), chlorinated solvents, or lead. No specific ecological data is available for this product.**13 Disposal considerations****DISPOSAL METHOD:** Dispose of in accordance with local, state, and federal regulations. Do not puncture, incinerate, or compact. Partially empty cans cannot be disposed of with regular trash. Do not heat or cut empty containers with electric or gas torches.

(Contd. on page 4)

USA

70324Z

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 11/15/2004

Reviewed on 11/15/2004

Trade name: ALUMINUM HI-TEMP**Recommendation:** Empty cans should be recycled.

(Contd. of page 3)

14 Transport information:

Hazard class:	2.1
Identification number:	N/A
Label	2.1
ADR/RID class:	2 5F Gases
UN-Number:	1950
IMDG Class:	2
Packaging group:	II
EMS Number:	F-D,S-U
Marine pollutant:	No
ICAO/IATA Class:	2.1
Propper shipping name:	Aerosols, Flammable Consumer Commodity ORM-D

15 Regulations**SARA Section 355 (extremely hazardous substances):**

None of the ingredients in this product are listed.

SARA Section 313 (Specific toxic chemical listings):

108-88-3	toluene
1330-20-7	xylene (mix)

TSCA (Toxic Substances**Control Act):** All ingredients are listed.**PROPOSITION 65 Chemicals known to cause cancer:**

100-41-4	ethyl benzene
----------	---------------

PROPOSITION 65 Chemicals known to cause reproductive toxicity:

108-88-3	toluene
----------	---------

Canadian WHMIS:
EPA:

Class A, B5---Flammable Aerosols

A= Known human carcinogen B= Probable human carcinogen

C= Possible human carcinogen

D= Not classifiable as to human carcinogenicity: Inadequate human and animal evidence of carcinogenicity (or no data is available).

108-88-3	toluene	D
67-64-1	acetone	D
1330-20-7	xylene (mix)	D

IARC:

Group 2B: The ingredient is possibly carcinogenic to humans. There is limited evidence of carcinogenicity.

Group 3: The ingredient is unclassifiable as to its carcinogenicity to humans.

108-88-3	toluene	3
1330-20-7	xylene (mix)	3

ACGIH TLVs:

A1-designates a confirmed human carcinogen.

A2-designates a suspected human carcinogen.

A3-designates an animal carcinogen.

A4-designates "not classifiable as a human carcinogen".

108-88-3	toluene	A4
67-64-1	acetone	A4
1330-20-7	xylene (mix)	A4

NIOSH:

None of the ingredients is listed.

**USDA (United States
Department of
Agriculture):**

This product was manufactured to conform to the USDA Food Safety and Inspection Service performance standards. These standards include, but are not limited to, the ability of this product to be safe for use in official meat and poultry establishments, and to perform well under a daily regimen of thorough cleaning, cyclical temperature change, and wet conditions.

76324-z

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 11/15/2004

Reviewed on 11/15/2004

Trade name: ALUMINUM HI-TEMP

(Contd. of page 4)

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.

USA

