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Safety Data Sheet acc. to OSHA HCS

Printing date 03/28/2017 Reviewed on 03/28/2017

1 Identification

- · Product identifier
- · Trade name: 0H4.044 COURSE ALUMINUM
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier: Lusid Technologies 5195 West 4700 South KEARNS, UT 84118 USA

www.globalstar.online

- · Information department: Product safety department
- · Emergency telephone number:

INFOTRAC 1-800-535-5053

2 Hazard(s) identification

· Classification of the substance or mixture



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.

Water-react. 1 H260 In contact with water releases flammable gases, which may ignite spontaneously.



GHS08 Health hazard

Muta. 1B H340 May cause genetic defects.

Carc. 1B H350 May cause cancer.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



Skin Irrit. 2 H315 Causes skin irritation.

- · Label elements
- $\cdot \textit{GHS label elements} \ \textit{The product is classified and labeled according to the Globally Harmonized System (GHS)}.$

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Trade name: 0H4.044 COURSE ALUMINUM

· Hazard pictograms







· Signal word Danger

· Hazard-determining components of labeling:

Naphtha (petroleum), hydrotreated heavy

ethylbenzene

Solvent naphtha (petroleum), light arom.

· Hazard statements

Flammable liquid and vapor.

In contact with water releases flammable gases, which may ignite spontaneously.

Causes skin irritation.

May cause genetic defects.

May cause cancer.

May cause damage to organs through prolonged or repeated exposure.

May be fatal if swallowed and enters airways.

· Precautionary statements

Do not allow contact with water.

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Handle under inert gas. Protect from moisture.

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

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

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

Ground/bond container and receiving equipment.

Keep container tightly closed.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

IF SWALLOWED: Immediately call a POISON CENTER/doctor.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Specific treatment (see on this label).

IF exposed or concerned: Get medical advice/attention.

If skin irritation occurs: Get medical advice/attention.

Get medical advice/attention if you feel unwell.

Do NOT induce vomiting.

In case of fire: Use for extinction: CO2, sand, extinguishing powder.

Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.

Take off contaminated clothing and wash it before reuse.

Store locked up.

Store in a well-ventilated place. Keep cool.

Store in a dry place. Store in a closed container.

Dispose of contents/container in accordance with local/regional/national/international regulations.

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- · Classification system:
- · NFPA ratings (scale 0 4)



The substance demonstrates unusual reactivity with water.

· HMIS-ratings (scale 0 - 4)



- · 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:		
7429-90-5	aluminium powder (stabilised)	25-50%
108-65-6	2-methoxy-1-methylethyl acetate	10-25%
1330-20-7 xylene		10-25%
107-98-2	1-methoxy-2-propanol	10-25%
64742-48-9	Naphtha (petroleum), hydrotreated heavy	10-25%
123-86-4 n-butyl acetate 64742-95-6 Solvent naphtha (petroleum), light arom.		2.5-10%
		2.5-10%
100-41-4	ethylbenzene	2.5-10%

4 First-aid measures

- · Description of first aid measures
- · General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- · After inhalation: 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:
- · 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.

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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.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · 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:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

· 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.

· Protective Action Criteria for Chemicals

108-65-6	2-methoxy-1-methylethyl acetate	50 ppm
1330-20-7	xylene	130 ppm
107-98-2	1-methoxy-2-propanol	100 ppm
64742-48-9	Naphtha (petroleum), hydrotreated heavy	350 mg/n
123-86-4	n-butyl acetate	5 ppm
100-41-4	ethylbenzene	33 ppm
71-36-3	butan-1-ol	60 ppm
PAC-2:		
108-65-6	2-methoxy-1-methylethyl acetate	1,000 ppm
1330-20-7	xylene	920* ppm
107-98-2	1-methoxy-2-propanol	160 ppm
64742-48-9	Naphtha (petroleum), hydrotreated heavy	1,800 mg/n
123-86-4	n-butyl acetate	200 ppm
100-41-4	ethylbenzene	1100* ppm
71-36-3	butan-1-ol	800 ppm
PAC-3:		
108-65-6	2-methoxy-1-methylethyl acetate	5000* ppm
1330-20-7	xylene	2500* ppm
107-98-2	1-methoxy-2-propanol	660 ppm
64742-48-9	Naphtha (petroleum), hydrotreated heavy	40,000 mg/n
123-86-4	n-butyl acetate	3000* ppm

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100-41	-4 ethylbenzene	1800* ppm
71-36	-3 butan-1-ol	8000** ppm

7 Handling and storage

- · Handling:
- · Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.
- · Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Keep receptacle tightly sealed.

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:

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.

	65-6 2-methoxy-1-methylethyl acetate		
WEEL Long-term value: 50 ppm			
1330-	-20-7 xylene		
PEL	Long-term value: 435 mg/m³, 100 ppm		
REL	Short-term value: 655 mg/m³, 150 ppm Long-term value: 435 mg/m³, 100 ppm		
TLV	Short-term value: 651 mg/m³, 150 ppm Long-term value: 434 mg/m³, 100 ppm BEI		
107-9	98-2 1-methoxy-2-propanol		
REL	Short-term value: 540 mg/m³, 150 ppm Long-term value: 360 mg/m³, 100 ppm		
TLV	Short-term value: 369 mg/m³, 100 ppm Long-term value: 184 mg/m³, 50 ppm		
123-8	86-4 n-butyl acetate		
PEL	Long-term value: 710 mg/m³, 150 ppm		
REL	Short-term value: 950 mg/m³, 200 ppm Long-term value: 710 mg/m³, 150 ppm		
TLV	Short-term value: 712 mg/m³, 150 ppm Long-term value: 238 mg/m³, 50 ppm		

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100-41-4 ethylbenzene

PEL Long-term value: 435 mg/m³, 100 ppm

REL Short-term value: 545 mg/m³, 125 ppm
Long-term value: 435 mg/m³, 100 ppm

TLV Long-term value: 87 mg/m³, 20 ppm

BEI

· Ingredients with biological limit values:

1330-20-7 xylene

BEI 1.5 g/g creatinine

Medium: urine Time: end of shift

Parameter: Methylhippuric acids

100-41-4 ethylbenzene

BEI 0.7 g/g creatinine

Medium: urine

Time: end of shift at end of workweek

Parameter: Sum of mandelic acid and phenylglyoxylic acid (nonspecific, semi-quantitative)

_

Medium: end-exhaled air

Time: not critical

Parameter: Ethyl benzene (semi-quantitative)

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

· 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.

· Protection of hands:



Protective gloves

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 chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· 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.

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· Eye protection:

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Tightly sealed goggles

Information on basic physical and	chemical properties
General Information	спетим ргорениез
Appearance:	
Form:	Liquid
Color:	Silver-colored
Odor:	Characteristic
Odor threshold:	Not determined.
pH-value:	Not determined (pH N/A in solvent coatings)
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	120.3 °C (249 °F)
Flash point:	27 °C (81 °F)
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	
Decomposition temperature:	Not determined.
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product is not explosive. However, formation of explosive air/vapmixtures are possible.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapor pressure:	Not determined.
Density at 20 °C (68 °F):	$1.01 \ g/cm^3 (8.428 \ lbs/gal)$
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
Partition coefficient (n-octanol/wat	er): Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.

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VOC content:	70 % Coating VOC 651.1 g/l / 5.43 lb/gl Material VOC 651.1 g/l / 5.43 lb/gl	
Solids content: · Other information	30.0 % No further relevant information available.	

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions Contact with water releases flammable gases.
- · 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:

	······································			
· LD/LC50	· LD/LC50 values that are relevant for classification:			
1330-20-7	1330-20-7 xylene			
Oral	LD50	4300 mg/kg (rat)		
Dermal	LD50	2000 mg/kg (rabbit)		
64742-48-	64742-48-9 Naphtha (petroleum), hydrotreated heavy			
Oral	LD50	>5000 mg/kg (rat)		
Dermal	<i>LD50</i>	>3000 mg/kg (rab)		
64742-95-	64742-95-6 Solvent naphtha (petroleum), light arom.			
Oral	LD50	>6800 mg/kg (rat)		
Dermal	LD50	>3400 mg/kg (rab)		
Inhalative	LC50/4 h	>10.2 mg/l (rat)		

- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations: Irritant

The product can cause inheritable damage.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)		
1330-20-7	xylene	3
100-41-4	ethylbenzene	2B

· NTP (National Toxicology Program)

None of the ingredients is listed.

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· 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.

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

- · UN-Number
- · DOT, IMDG, IATA UN1263
- · UN proper shipping name
- · DOT Paint
 · IMDG, IATA PAINT
- · Transport hazard class(es)
- $\cdot DOT$



· Class 3 Flammable liquids

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Label	3
IMDG, IATA	
3	
Class	3 Flammable liquids
Label	3
Packing group	
DOT, IMDG, IATA	III
Environmental hazards:	Not applicable.
Special precautions for user	Warning: Flammable liquids
Danger code (Kemler):	39
EMS Number:	<i>F-E,<u>S-E</u></i>
Stowage Category	A
Transport in bulk according to Annex MARPOL73/78 and the IBC Code	II of Not applicable.
Transport/Additional information:	
DOT	
Quantity limitations	On passenger aircraft/rail: 60 L
<i>2</i>	On cargo aircraft only: 220 L
IMDG	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
UN "Model Regulation":	UN 1263 PAINT, 3, III

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):
	1330-20-7 xylene
	100 /1 / 1 11

100-41-4 ethylbenzene

71-36-3 butan-1-ol

· TSCA (Toxic Substances Control Act):

108-65-6 2-methoxy-1-methylethyl acetate

1330-20-7 xylene

64742-48-9 Naphtha (petroleum), hydrotreated heavy

123-86-4 n-butyl acetate

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64742-95-6	Solvent naphtha (petroleum), light arom.
100-41-4	ethylbenzene
71-36-3	butan-1-ol
· Proposition	65
· Chemicals	known to cause cancer:
100-41-4 e	thylbenzene

· 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:

None of the ingredients is listed.

· Carcinogenic categories

· EPA (Envi	· EPA (Environmental Protection Agency)		
1330-20-7	xylene	I	
100-41-4	ethylbenzene	D	
71-36-3	butan-1-ol	D	

· TLV (Threshold Limit Value established by ACGIH)	
1330-20-7 xylene	A4
100-41-4 ethylbenzene	A3

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

None of the ingredients is listed.

- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms







GHS02

GHS07

07 CHS

- · Signal word Danger
- · Hazard-determining components of labeling:

Naphtha (petroleum), hydrotreated heavy

ethylbenzene

Solvent naphtha (petroleum), light arom.

· Hazard statements

Flammable liquid and vapor.

In contact with water releases flammable gases, which may ignite spontaneously.

Causes skin irritation.

May cause genetic defects.

May cause cancer.

May cause damage to organs through prolonged or repeated exposure.

May be fatal if swallowed and enters airways.

· Precautionary statements

Do not allow contact with water.

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Handle under inert gas. Protect from moisture.

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

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

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

Ground/bond container and receiving equipment.

Keep container tightly closed.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

IF SWALLOWED: Immediately call a POISON CENTER/doctor.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Specific treatment (see on this label).

IF exposed or concerned: Get medical advice/attention.

If skin irritation occurs: Get medical advice/attention.

Get medical advice/attention if you feel unwell.

Do NOT induce vomiting.

In case of fire: Use for extinction: CO2, sand, extinguishing powder.

Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.

Take off contaminated clothing and wash it before reuse.

Store locked up.

Store in a well-ventilated place. Keep cool.

Store in a dry place. Store in a closed container.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- · National regulations:
- · Additional classification according to Decree on Hazardous Materials:

Carcinogenic hazardous material group III (dangerous).

· Information about limitation of use:

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

· 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.

- · Department issuing SDS: Environment protection department.
- · Contact: Product Safety Dept.
- · Date of preparation / last revision 03/28/2017 / -
- · 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)

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

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OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Flam. Liq. 3: Flammable liquids – Category 3

Water-react. 1: Substances and mixtures which in contact with water emit flammable gases – Category 1 Skin Irrit. 2: Skin corrosion/irritation – Category 2

Muta. 1B: Germ cell mutagenicity – Category 1B Carc. 1B: Carcinogenicity – Category 1B

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Asp. Tox. 1: Aspiration hazard – Category 1