

Safety Data Sheet
acc. to OSHA HCS

Printing date 08/12/2025

Reviewed on 08/12/2025

* **1 Identification**

- **Product identifier**
- **Trade name:** GB28 LOW VOC UNIVERSAL BINDER
- **Article number:** GB28
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
NorthStar is a product of Lusid Technologies Inc
4725 S Camp Kearns Road
Kearns, UT 84118
(801) 966-5300
info@lusidtechnologies.com
- **Information department:** Product safety department
- **Emergency telephone number:**
24 Hrs Emergency Contact:
INFOTRAC
1-800-535-5053

* **2 Hazard(s) identification**

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids 2

H225 Highly flammable liquid and vapor.



GHS08 Health hazard

Carcinogenicity 2

H351 Suspected of causing cancer.

Specific Target Organ Toxicity - Repeated Exposure 2
H373 May cause damage to the hearing organs
through prolonged or repeated exposure.



GHS07

Skin Irritation 2

H315 Causes skin irritation.

Eye Irritation 2A

H319 Causes serious eye irritation.

Specific Target Organ Toxicity - Single Exposure 3
H336 May cause drowsiness or dizziness.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 2)
USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/12/2025

Reviewed on 08/12/2025

Trade name: GB28 LOW VOC UNIVERSAL BINDER

(Contd. of page 1)

· Hazard pictograms



GHS02 GHS07 GHS08

· Signal word Danger

· Hazard-determining components of labeling:

4-chloro-alpha,alpha,alpha-trifluorotoluene

acetone

ethylbenzene

n-butyl acetate

· Hazard statements

Highly flammable liquid and vapor.

Causes skin irritation.

Causes serious eye irritation.

Suspected of causing cancer.

May cause drowsiness or dizziness.

May cause damage to the hearing organs through prolonged or repeated exposure.

· Precautionary statements

Obtain special instructions before use.

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

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

Ground/bond container and receiving equipment.

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

Use only non-sparking tools.

Take precautionary measures against static discharge.

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

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

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

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

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Call a poison center/doctor if you feel unwell.

Specific treatment (see on this label).

Get medical advice/attention if you feel unwell.

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use CO₂, powder or water spray to extinguish.

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Store locked up.

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

· Classification system:

· NFPA ratings (scale 0 - 4)



Health = 2

Fire = 3

Reactivity = 0

(Contd. on page 3)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/12/2025

Reviewed on 08/12/2025

Trade name: GB28 LOW VOC UNIVERSAL BINDER

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

(Contd. of page 2)

HEALTH	*2	Health = *2
FIRE	3	Fire = 3
REACTIVITY	0	Reactivity = 0

- **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:**

67-64-1	acetone	25-50%
98-56-6	4-chloro-alpha,alpha,alpha-trifluorotoluene	10-25%
123-86-4	n-butyl acetate	2.5-10%
1330-20-7	xylene	2.5-10%
71-36-3	butan-1-ol	≤2.5%
100-41-4	ethylbenzene	0-≤2.5%

4 First-aid measures

- **Description of first aid measures**

- **General information:**

Immediately remove any clothing soiled by the product.

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. If symptoms persist, consult a doctor.

- **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.

* 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**

During heating or in case of fire poisonous gases are produced.

(Contd. on page 4)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/12/2025

Reviewed on 08/12/2025

Trade name: GB28 LOW VOC UNIVERSAL BINDER

(Contd. of page 3)

- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

* **6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures**

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**

Dilute with plenty of water.

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 section 13.

Ensure adequate ventilation.

- **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**

- **PAC-1:**

67-64-1	acetone	200 ppm
123-86-4	<i>n</i> -butyl acetate	5 ppm
1330-20-7	xylene	130 ppm
71-36-3	butan-1-ol	60 ppm
100-41-4	ethylbenzene	33 ppm
64-17-5	ethanol	1,800 ppm
108-88-3	toluene	67 ppm

- **PAC-2:**

67-64-1	acetone	3200* ppm
123-86-4	<i>n</i> -butyl acetate	200 ppm
1330-20-7	xylene	920* ppm
71-36-3	butan-1-ol	800 ppm
100-41-4	ethylbenzene	1100 ppm
64-17-5	ethanol	3300* ppm
108-88-3	toluene	560 ppm

- **PAC-3:**

67-64-1	acetone	5700* ppm
123-86-4	<i>n</i> -butyl acetate	3000* ppm
1330-20-7	xylene	2500* ppm
71-36-3	butan-1-ol	8000** ppm
100-41-4	ethylbenzene	1800 ppm
64-17-5	ethanol	15000* ppm
108-88-3	toluene	3700 ppm

USA

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/12/2025

Reviewed on 08/12/2025

Trade name: GB28 LOW VOC UNIVERSAL BINDER

(Contd. of page 4)

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **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 section 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 remaining constituent has no known exposure limits.

67-64-1 acetone

PEL	Long-term value: 2400 mg/m ³ , 1000 ppm
REL	Long-term value: 590 mg/m ³ , 250 ppm
TLV	Short-term value: 1187 mg/m ³ , 500 ppm Long-term value: 594 mg/m ³ , 250 ppm A4, BEI

123-86-4 n-butyl acetate

PEL	Long-term value: 710 mg/m ³ , 150 ppm
REL	Short-term value: 950 mg/m ³ , 200 ppm Long-term value: 710 mg/m ³ , 150 ppm
TLV	Short-term value: 712 mg/m ³ , 150 ppm Long-term value: 238 mg/m ³ , 50 ppm

1330-20-7 xylene

PEL	Long-term value: 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
TLV	Long-term value: 20 ppm BEI, A4

(Contd. on page 6)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/12/2025

Reviewed on 08/12/2025

Trade name: GB28 LOW VOC UNIVERSAL BINDER

(Contd. of page 5)

71-36-3 butan-1-ol

PEL	Long-term value: 300 mg/m ³ , 100 ppm
REL	Ceiling limit value: 150 mg/m ³ , 50 ppm Skin
TLV	Long-term value: 61 mg/m ³ , 20 ppm

100-41-4 ethylbenzene

PEL	Long-term value: 435 mg/m ³ , 100 ppm
REL	Short-term value: 545 mg/m ³ , 125 ppm Long-term value: 435 mg/m ³ , 100 ppm
TLV	Long-term value: 20 ppm OTO, BEI, A3

· **Ingredients with biological limit values:****67-64-1 acetone**

BEI	25 mg/L Medium: urine Time: end of shift Parameter: Acetone (nonspecific)
-----	--

1330-20-7 xylene

BEI	0.3 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids
-----	--

100-41-4 ethylbenzene

BEI	0.15 g/g creatinine Medium: urine Time: end of shift Parameter: Sum of mandelic acid and phenylglyoxylic acid (nonspecific)
-----	--

· **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 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

(Contd. on page 7)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/12/2025

Reviewed on 08/12/2025

Trade name: GB28 LOW VOC UNIVERSAL BINDER

(Contd. of page 6)

· 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:



Tightly sealed goggles

* **9 Physical and chemical properties**

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form:

Liquid

Color:

Cloudy

· 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:

55.8-56.6 °C (132.4-133.9 °F)

· Flash point:

<-18 °C (<-0.4 °F)

· Flammability:

Highly flammable.

· Auto igniting:

465 °C (869 °F)

· Decomposition temperature:

Not determined.

· Ignition temperature:

Product is not selfigniting.

· Danger of explosion:

Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· Explosion limits:

Lower:

2.6 Vol %

Upper:

13 Vol %

· Vapor pressure at 20 °C (68 °F):

233 hPa (174.8 mm Hg)

· Vapor pressure at 50 °C (122 °F):

800 hPa (600 mm Hg)

· Density at 20 °C (68 °F):

0.9948 g/cm³ (8.3016 lbs/gal)

· Relative density

Not determined.

· Vapor density

Not determined.

· Evaporation rate

Not determined.

· Solubility in / Miscibility with

Water:

Fully miscible.

(Contd. on page 8)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/12/2025

Reviewed on 08/12/2025

Trade name: GB28 LOW VOC UNIVERSAL BINDER

(Contd. of page 7)

· Partition coefficient (n-octanol/water): Not determined.	
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	≥55.9-<56.1 %
VOC content:	≥11.42-<11.55 % 334.6 g/l / 2.79 lb/gal
· Solids content:	22.4 %
· Other information	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** 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:** Irritant to skin and mucous membranes.
 - **on the eye:** 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
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)**

98-56-6	4-chloro-alpha,alpha,alpha-trifluorotoluene	2B
1330-20-7	xylene	3
100-41-4	ethylbenzene	2B
64-17-5	ethanol	1
108-88-3	toluene	3
- **NTP (National Toxicology Program)**
- None of the ingredients is listed.

(Contd. on page 9)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/12/2025

Reviewed on 08/12/2025

Trade name: GB28 LOW VOC UNIVERSAL BINDER

(Contd. of page 8)

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

14 Transport information

- **UN-Number**
- **DOT, IMDG, IATA** UN1263

- **UN proper shipping name**
- **DOT** Paint
- **IMDG, IATA** PAINT

- **Transport hazard class(es)**

- **DOT**



- **Class** 3 Flammable liquids

(Contd. on page 10)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/12/2025

Reviewed on 08/12/2025

Trade name: GB28 LOW VOC UNIVERSAL BINDER

(Contd. of page 9)

· Label	3
· IMDG, IATA	
	
· Class	3 Flammable liquids
· Label	3
· Packing group	
· DOT, IMDG, IATA	II
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Flammable liquids
· Hazard identification number (Kemler code):	33
· EMS Number:	F-E,S-E
· Stowage Category	B
· 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: 5 L On cargo aircraft only: 60 L
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1263 PAINT, 3, II

*	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):
1330-20-7	xylene
71-36-3	butan-1-ol
100-41-4	ethylbenzene
108-88-3	toluene
·	TSCA (Toxic Substances Control Act):
All components have the value ACTIVE.	

(Contd. on page 11)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/12/2025

Reviewed on 08/12/2025

Trade name: GB28 LOW VOC UNIVERSAL BINDER

(Contd. of page 10)

· Hazardous Air Pollutants		
1330-20-7	xylene	
100-41-4	ethylbenzene	
108-88-3	toluene	
· Proposition 65		
· Chemicals known to cause cancer:		
98-56-6	4-chloro-alpha,alpha,alpha-trifluorotoluene	
100-41-4	ethylbenzene	
· 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:		
64-17-5	ethanol	
108-88-3	toluene	
· Carcinogenic categories		
· EPA (Environmental Protection Agency)		
67-64-1	acetone	I
1330-20-7	xylene	I
71-36-3	butan-1-ol	D
100-41-4	ethylbenzene	D
108-88-3	toluene	II
· TLV (Threshold Limit Value)		
67-64-1	acetone	A4
1330-20-7	xylene	A4
100-41-4	ethylbenzene	A3
64-17-5	ethanol	A3
108-88-3	toluene	A4
· 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	GHS08
· Signal word Danger		
· Hazard-determining components of labeling:		
4-chloro-alpha,alpha,alpha-trifluorotoluene		
acetone		
ethylbenzene		
n-butyl acetate		

(Contd. on page 12)
USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/12/2025

Reviewed on 08/12/2025

Trade name: GB28 LOW VOC UNIVERSAL BINDER

(Contd. of page 11)

· Hazard statements

Highly flammable liquid and vapor.
 Causes skin irritation.
 Causes serious eye irritation.
 Suspected of causing cancer.
 May cause drowsiness or dizziness.
 May cause damage to the hearing organs through prolonged or repeated exposure.

· Precautionary statements

Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 Ground/bond container and receiving equipment.
 Use explosion-proof electrical/ventilating/lighting/equipment.
 Use only non-sparking tools.
 Take precautionary measures against static discharge.
 Do not breathe dust/fume/gas/mist/vapors/spray.
 Wash thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves/protective clothing/eye protection/face protection.
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 IF exposed or concerned: Get medical advice/attention.
 Call a poison center/doctor if you feel unwell.
 Specific treatment (see on this label).
 Get medical advice/attention if you feel unwell.
 Take off contaminated clothing and wash it before reuse.
 If skin irritation occurs: Get medical advice/attention.
 If eye irritation persists: Get medical advice/attention.
 In case of fire: Use CO₂, powder or water spray to extinguish.
 Store in a well-ventilated place. Keep container tightly closed.
 Store in a well-ventilated place. Keep cool.
 Store locked up.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

· 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 08/12/2025 / 7****· Abbreviations and acronyms:**

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)
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative

(Contd. on page 13)
USA

Safety Data Sheet
acc. to OSHA HCS

Printing date 08/12/2025

Reviewed on 08/12/2025

Trade name: GB28 LOW VOC UNIVERSAL BINDER

(Contd. of page 12)

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 Liquids 2: Flammable liquids – Category 2

Skin Irritation 2: Skin corrosion/irritation – Category 2

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

Carcinogenicity 2: Carcinogenicity – Category 2

Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

Specific Target Organ Toxicity - Repeated Exposure 2: Specific target organ toxicity (repeated exposure) – Category 2

* Data compared to the previous version altered.

USA