

Safety Data Sheet acc. to OSHA HCS

Printing date 01/14/2025

Reviewed on 01/14/2025

1 Identification

- **Product identifier**
- **Trade name:** **SHS55 MEDIUM STARFLAKE**
- **Article number:** SHS55
- **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 3

Substances and mixtures which, in contact with water, emit flammable gases 2

H226 Flammable liquid and vapor.

H261 In contact with water releases flammable gas.



GHS08 Health hazard

Germ Cell Mutagenicity 1B

Carcinogenicity 1A

H340 May cause genetic defects.

H350 May cause cancer.



GHS07

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).

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· **Hazard pictograms**



GHS02 GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**

n-butyl acetate
Solvent naphtha (petroleum), light arom.
Naphtha (petroleum), hydrotreated heavy ethylbenzene

· **Hazard statements**

Flammable liquid and vapor.
In contact with water releases flammable gas.
May cause genetic defects.
May cause cancer.
May cause drowsiness or dizziness.

· **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.
Do not allow contact with water.
Handle under inert gas. Protect from moisture.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust/fume/gas/mist/vapors/spray
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 exposed or concerned: Get medical advice/attention.
Call a poison center/doctor if you feel unwell.
Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.
In case of fire: Use CO₂, sand, extinguishing powder to extinguish.
Store in a dry place. Store in a closed container.
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 = 0
Fire = 3
Reactivity = 2

The substance demonstrates unusual reactivity with water.

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

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

- **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:**

123-86-4	<i>n</i> -butyl acetate	25-50%
7429-90-5	aluminium	10-25%
64742-95-6	Solvent naphtha (petroleum), light arom.	2.5-10%
64742-48-9	Naphtha (petroleum), hydrotreated heavy	≤2.5%
1330-20-7	xylene	≤2.5%
100-41-4	ethylbenzene	≤2.5%
64-17-5	ethanol	≤2.5%
67-56-1	methanol	≤2.5%

4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **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.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
Extinguishing powder. Do not use water.
CO₂. Do not use water.
Sand. Do not use water.
Special powder for metal fires. Do not use water.
CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water
- **Special hazards arising from the substance or mixture** No further relevant information available.

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- **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:**
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.
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**

- **PAC-1:**

123-86-4	<i>n</i> -butyl acetate	5 ppm
64742-48-9	Naphtha (petroleum), hydrotreated heavy	350 mg/m ³
1330-20-7	xylene	130 ppm
100-41-4	ethylbenzene	33 ppm
64-17-5	ethanol	1,800 ppm
108-65-6	2-methoxy-1-methylethyl acetate	50 ppm
67-56-1	methanol	530 ppm
122-99-6	2-phenoxyethanol	1.5 ppm
7664-38-2	phosphoric acid	3 mg/m ³
67-63-0	propan-2-ol	400 ppm

- **PAC-2:**

123-86-4	<i>n</i> -butyl acetate	200 ppm
64742-48-9	Naphtha (petroleum), hydrotreated heavy	1,800 mg/m ³
1330-20-7	xylene	920* ppm
100-41-4	ethylbenzene	1100* ppm
64-17-5	ethanol	3300* ppm
108-65-6	2-methoxy-1-methylethyl acetate	1,000 ppm
67-56-1	methanol	2,100 ppm
122-99-6	2-phenoxyethanol	16 ppm
7664-38-2	phosphoric acid	30 mg/m ³
67-63-0	propan-2-ol	2000* ppm

- **PAC-3:**

123-86-4	<i>n</i> -butyl acetate	3000* ppm
64742-48-9	Naphtha (petroleum), hydrotreated heavy	40,000 mg/m ³
1330-20-7	xylene	2500* ppm
100-41-4	ethylbenzene	1800* ppm

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64-17-5	ethanol	15000* ppm
108-65-6	2-methoxy-1-methylethyl acetate	5000* ppm
67-56-1	methanol	7200* ppm
122-99-6	2-phenoxyethanol	97 ppm
7664-38-2	phosphoric acid	150 mg/m ³
67-63-0	propan-2-ol	12000** ppm

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:** 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 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 other constituents have no known exposure limits.

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: 150 ppm Long-term value: 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

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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

64-17-5 ethanol

PEL	Long-term value: 1900 mg/m ³ , 1000 ppm
REL	Long-term value: 1900 mg/m ³ , 1000 ppm
TLV	Short-term value: 1000 ppm A3

67-56-1 methanol

PEL	Long-term value: 260 mg/m ³ , 200 ppm
REL	Short-term value: 325 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm Skin
TLV	Short-term value: 250 ppm Long-term value: 200 ppm Skin; BEIc

· **Ingredients with biological limit values:****1330-20-7 xylene**

BEI	1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids
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100-41-4 ethylbenzene

BEI	0.15 g/g creatinine Medium: urine Time: end of shift at end of workweek Parameter: Sum of mandelic acid and phenylglyoxylic acid (nonspecific)
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67-56-1 methanol

BEI	15 mg/L Medium: urine Time: end of shift Parameter: Methanol (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:**

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.

· **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.

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- **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.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

· Form:	Liquid
· Color:	Silver grey
· 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:	124-128 °C (255.2-262.4 °F)

- **Flash point:** 27 °C (80.6 °F)

- **Flammability:** Flammable.
Contact with water liberates extremely flammable gases.

- **Auto igniting:** 370 °C (698 °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:	1.2 Vol %
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Upper:	7.5 Vol %
· Vapor pressure at 20 °C (68 °F):	10.7 hPa (8 mm Hg)
· Vapor pressure at 50 °C (122 °F):	55 hPa (41.3 mm Hg)
· Density at 20 °C (68 °F):	1.1506 g/cm ³ (9.6018 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· 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:	40.2 %
VOC content:	40.17 %
	353.3 g/l / 2.95 lb/gal
· Solids content:	69.3 %
· 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** 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 values that are relevant for classification:**

123-86-4 n-butyl acetate

Oral	LD50	13,100 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit)
Inhalative	LC50/4 h	>21 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.

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- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
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
64-17-5	ethanol	1
67-63-0	propan-2-ol	3

- **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 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it 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:**
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** UN3148

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· **UN proper shipping name**
 · **DOT**
 · **IMDG, IATA**

Water-reactive liquid, n.o.s. (Aluminum powder)
 WATER-REACTIVE LIQUID, N.O.S. (ALUMINIUM POWDER)

· **Transport hazard class(es)**· **DOT**· **Class**

4.3 Substances which, in contact with water, emit flammable gases

· **Label**

4.3

· **IMDG, IATA**· **Class**

4.3 Substances which, in contact with water, emit flammable gases

· **Label**

4.3

· **Packing group**· **DOT, IMDG, IATA**

II

· **Environmental hazards:**

Not applicable.

· **Special precautions for user**

Warning: Substances which, in contact with water, emit flammable gases

· **Hazard identification number (Kemler code):** 429· **EMS Number:**

F-G,S-N

· **Segregation groups**

(SGG15) Powdered metals

· **Stowage Category**

E

· **Stowage Code**

SW2 Clear of living quarters.

· **Handling Code**

H1 Keep as dry as reasonably practicable

· **Segregation Code**

SG26 In addition: from goods of classes 2.1 and 3 when stowed on deck of a containership a minimum distance of two container spaces athwartship shall be maintained, when stowed on ro-ro ships a distance of 6 m athwartship shall be maintained.

· **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: 1 L

On cargo aircraft only: 5 L

· **IMDG**· **Limited quantities (LQ)**

500 ml

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· 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 3148 WATER-REACTIVE LIQUID, N.O.S. (ALUMINIUM POWDER), 4.3, II

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):**

7429-90-5 aluminium

1330-20-7 xylene

100-41-4 ethylbenzene

67-56-1 methanol

122-99-6 2-phenoxyethanol

7664-38-2 phosphoric acid

67-63-0 propan-2-ol

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

All components have the value ACTIVE.

- **Hazardous Air Pollutants**

1330-20-7 xylene

100-41-4 ethylbenzene

67-56-1 methanol

- **Proposition 65**

- **Chemicals known to cause cancer:**

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

67-56-1 methanol

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

1330-20-7 xylene

I

100-41-4 ethylbenzene

D

- **TLV (Threshold Limit Value)**

7429-90-5 aluminium

A4

1330-20-7 xylene

A4

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100-41-4	ethylbenzene	A3
64-17-5	ethanol	A3
67-63-0	propan-2-ol	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:

n-butyl acetate
Solvent naphtha (petroleum), light arom.
Naphtha (petroleum), hydrotreated heavy
ethylbenzene

· Hazard statements

Flammable liquid and vapor.
In contact with water releases flammable gas.
May cause genetic defects.
May cause cancer.
May cause drowsiness or dizziness.

· 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.
Do not allow contact with water.
Handle under inert gas. Protect from moisture.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust/fume/gas/mist/vapors/spray
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 exposed or concerned: Get medical advice/attention.
Call a poison center/doctor if you feel unwell.
Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.
In case of fire: Use CO₂, sand, extinguishing powder to extinguish.
Store in a dry place. Store in a closed container.
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.

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- **National regulations:**
- **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** 01/14/2025 / -
- **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)
 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 Liquids 3: Flammable liquids – Category 3
 Substances and mixtures which, in contact with water, emit flammable gases 2: Substances and mixtures which in contact with water emit flammable gases – Category 2
 Germ Cell Mutagenicity 1B: Germ cell mutagenicity – Category 1B
 Carcinogenicity 1A: Carcinogenicity – Category 1A
 Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

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