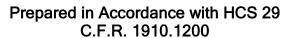
Safety Data Sheet





1. Identification of the Substance/Mixture and the Company/Undertaking

1.1 Product Identifier 63XX/ISO-0100 Revision Date: 10/25/2018

Product Name: GS6 CLEAR GLOSS ISO Supercedes Date: 06/25/2018

1.2 Relevant identified uses of the substance or mixture and uses

advised against

Hardener for 2 components coatings - Industrial use.

1.3 Details of the supplier of the safety data sheet

Manufacturer: Stonhard, Division of StonCor Group, Inc.

1000 East Park Avenue Maple Shade, NJ 08052

+1 856 7797500 (US)

Datasheet Produced by: ehs@stonhard.com

1.4 Emergency telephone number: CHEMTREC 1-800-424-9300 (Inside US)

CHEMTREC +1 703 5273887 (Outside ÚS)

2. Hazard Identification

2.1 Classification of the substance or mixture

Acute Toxicity, Inhalation, category 3
Hazardous to the aquatic environment, Chronic, category 2
Carcinogenicity, category 1B
Flammable Liquid, category 3
Germ Cell Mutagenicity, category 1B
Respiratory Sensitizer, category 1
STOT, single exposure, category 3, RTI
Skin Irritation, category 2
Skin Sensitizer, category 1

2.2 Label elements

Symbol(s) of Product



Signal Word

Danger

Named Chemicals on Label

3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl-isocyanate, (R)-p-mentha-1,8-diene, hexamethylene diisocyanate, oligomers, CYCLOHEXANE, 5-ISOCYANATO-1-(ISOCYANATOMETHYL)-1,3,3-TRIMETHYL-, HOMOPOLYMER, Solvent naphtha (petroleum), light arom.

HAZARD STATEMENTS

Flammable Liquid, category 3	H226	Flammable liquid and vapour.
Skin Irritation, category 2	H315	Causes skin irritation.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Acute Toxicity, Inhalation, category 3	H331	Toxic if inhaled.
Respiratory Sensitizer, category 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
STOT, single exposure, category 3, RTI	H335	May cause respiratory irritation.
Germ Cell Mutagenicity, category 1B	H340-1B	May cause genetic defects.
Carcinogenicity, category 1B	H350-1B	May cause cancer.
Hazardous to the aquatic environment, Chronic, category 2	H411	Toxic to aquatic life with long lasting effects.

PRECAUTION PHRASES

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/ face protection.
P284	Wear respiratory protection.
P285	In case of inadequate ventilation wear respiratory protection.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P308+313	IF exposed or concerned: Get medical advice/attention.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.
P341	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342+311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P391	Collect spillage.
P403+233	Store in a well-ventilated place. Keep container tightly closed.

2.3 Other hazards

No Information

Results of PBT and vPvB assessment:

No information

3. Composition/Information On Ingredients

3.2 Mixtures

Hazardous Ingredients

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>%</u>
28182-81-2	hexamethylene diisocyanate, oligomers	50 - <75
5989-27-5	(R)-p-mentha-1,8-diene	10 - <25
53880-05-0	ĆYĆLOHEXANE, 5-ISOCYANATO-1-(ISOCYANATOMETHYL)-1,3,3-TRIMETHYL-, HOMOPOLYMER	10 - <25
64742-95-6	Solvent naphtha (petroleum), light arom.	2.5 - <10
123-86-4	n-butyl acetate	1.0 - <2.5
4098-71-9	3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl-isocyanate	0.1 - < 1.0

CAS-No.	GHS Symbols	GHS Hazard Statements	M-Factors
28182-81-2	GHS06	H317-331-335	0
5989-27-5	GHS02-GHS07-GHS09	H226-315-317-400-410	0
53880-05-0	GHS07-GHS08	H302-315-317-332-334	0
64742-95-6	GHS07-GHS08	H304-335-336-340-350	0
123-86-4	GHS02-GHS07	H225-336	0
4098-71-9	GHS06-GHS08-GHS09	H315-317-319-331-334-335-411	0

Additional Information:

The text for GHS Hazard Statements shown above (if any) is given in Section 16.

4. First-aid Measures

4.1 Description of First Aid Measures

GENERAL NOTES: When symptoms persist or in all cases of doubt seek medical advice.

AFTER INHALATION: Move to fresh air. Consult a physician after significant exposure.

AFTER SKIN CONTACT: Use a mild soap if available. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

AFTER EYE CONTACT: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses.

AFTER INGESTION: Gently wipe or rinse the inside of the mouth with water. Give small amounts of water to drink. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Harmful by inhalation. Irritating to eyes. Harmful in contact with skin and if swallowed.

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

5. Fire-fighting Measures

5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam

FOR SAFETY REASONS NOT TO BE USED: Alcohol, Alcohol based solutions, any other media not listed above.

5.2 Special hazards arising from the substance or mixture

Flammable.

5.3 Advice for firefighters

Flash back possible over considerable distance. In the event of fire, wear self-contained breathing apparatus. Do not use a solid water stream as it may scatter and spread fire. Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Water reactive

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. Remove all sources of ignition.

6.2 Environmental precautions

Do not allow material to contaminate ground water system. Prevent product from entering drains.

6.3 Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

Please refer to disposal requirements or country specific disposal requirements for this material. See Section 13 for further information.

Handling and Storage

7.1 Precautions for safe handling

INSTRUCTIONS FOR SAFE HANDLING: Electrical equipment should be protected to the appropriate standard. Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Do not breathe vapours or spray mist. Keep away from sources of ignition - No smoking.

PROTECTION AND HYGIENE MEASURES: Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

CONDITIONS TO AVOID: Direct sources of heat. Keep from any possible contact with water.

STORAGE CONDITIONS: Store in original container. Keep locked up or in an area accessible only to qualified or authorised persons. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

7.3 Specific end use(s)

No specific advice for end use available.

8. Exposure Controls/Personal Protection

8.1 Control parameters

Ingredients with Occupational Exposure Limits (US)

hexamethylene diisocyanate, oligomers

<u>Name</u>	CAS-No.	ACGIH TWA	ACGIH STEL	ACGIH Ceiling
hexamethylene diisocyanate, oligomers	28182-81-2			
(R)-p-mentha-1,8-diene	5989-27-5			
CYCLOHEXANE, 5-ISOCYANATO-1- (ISOCYANATOMETHYL)-1,3,3- TRIMETHYL-, HOMOPOLYMER	53880-05-0			
Solvent naphtha (petroleum), light arom.	64742-95-6	300.0 PPM		
n-butyl acetate	123-86-4	50 PPM	150 PPM	
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl-isocyanate	4098-71-9	0.005 PPM		
<u>Name</u>	CAS-No.	OSHA PEL	OSHA STEL	

28182-81-2

(R)-p-mentha-1,8-diene 5989-27-5 CYCLOHEXANE, 5-ISOCYANATO-1- 53880-05-0

(ISOCYANATOMETHYL)-1,3,3-TRIMETHYL-, HOMOPOLYMER

Solvent naphtha (petroleum), light arom. 64742-95-6 500.0 PPM

n-butyl acetate 123-86-4 710 MGM3, 150 950 MGM3, 200 PPM

PPM

3-lsocyanatomethyl-3,5,5- 4098-71-9 0.005 PPM 0.02 PPM

trimethylcyclohexyl-isocyanate

FURTHER INFORMATION: Refer to the regulatory exposure limits for the workforce enforced in each country.

8.2 Exposure controls

Personal Protection

RESPIRATORY PROTECTION: Respirator with filter for organic vapor.

EYE PROTECTION: Ensure that eyewash stations and safety showers are close to the workstation location. Safety glasses. Safety goagles.

HAND PROTECTION: Impervious gloves. Long sleeved clothing. Remove and wash contaminated clothing before re-use.

OTHER PROTECTIVE EQUIPMENT: No Information

ENGINEERING CONTROLS: Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance: CLEAR

Physical State Liquid

Odor CITRUS-LIKE ODOR

Odor threshold Not determined

pH N/A

Melting point / freezing point (°C)

Not determined

Boiling point/range (°C)

126 - N.D.

Boiling point/range (°C) 126 - N.D.
Flash Point, (°F / °C) 125F/52C

Evaporation rate Not determined

Flammability (solid, gas) Not determined

Upper/lower flammability or explosive N/A - N/A

limits

Vapour Pressure 1.2 mmHg

Vapour density NOT DETERMINED

Relative density

Not determined

Solubility in / Miscibility with water

NEGLIGIBLE

Partition coefficient: n-octanol/water

Not determined

Auto-ignition temperature (°C)

Not determined

Not determined

Viscosity 400 cps

Explosive properties Not determined

Oxidising properties Not determined

9.2 Other information

VOC Content g/l: 219

Grams of VOC per liter of coating product as applied (mixture of Part A and Part B) per ASTM D2369 Method E.

Specific Gravity (g/cm3) 1.070

10. Stability and Reactivity

10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

Stable under recommended storage conditions. Risk of ignition.

10.3 Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4 Conditions to avoid

Direct sources of heat. Keep from any possible contact with water.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke.

11. Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity:

Oral LD50: No information Inhalation LC50: No information

Irritation: No information available.

Corrosivity: No information available.

Sensitization: No information available.

Repeated dose toxicity: No information available.

Carcinogenicity: No information available.

Mutagenicity: No information available.

Toxicity for reproduction: No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50	Gas LC50	Dust/Mist LC50
28182-81-2	hexamethylene diisocyanate, oligomers	5000 mg/kg, oral, rat	>2000 mg/kg, rabbit	4.625 mg/l 1 hr rat		

53880-05-0	CYCLOHEXANE, 5- ISOCYANATO-1- (ISOCYANATOMETHYL)-1,3,3- TRIMETHYL-, HOMOPOLYMER	>1400 mg/kg, rat			0.000	>5 mg/l, 4h, rat
64742-95-6	Solvent naphtha (petroleum), light arom.	4700 mg/kg, oral, rat	>3480 mg/kg, rabbit	3670 ppm/4 hours, rat, inhalation	0.000	0.000
123-86-4	n-butyl acetate	10760 mg/kg, rat, oral	>5000 mg/kg (rabbit)	23.4 mg/l/4/h (rat)	0.000	0.000
4098-71-9	3-Isocyanatomethyl-3,5,5- trimethylcyclohexyl-isocyanate	5490 mg/kg oral, rat		40 mg/m3 inhalation, rat (4 hour)	0.000	0.000

Additional Information:

No Information

12. Ecological Information

12.1 Toxicity:

EC50 48hr (Daphnia):

IC50 72hr (Algae):

No information

No information

No information

12.2 Persistence and degradability: No information

12.3 Bioaccumulative potential: No information

12.4 Mobility in soil: No information

12.5 Results of PBT and vPvB No information

assessment:

12.6 Other adverse effects: No information

CAS-No.	Chemical Name	EC50 48hr	IC50 72hr	LC50 96hr
28182-81-2	hexamethylene diisocyanate, oligomers	127 mg/l	199 mg/l	>100 mg/l
5989-27-5	(R)-p-mentha-1,8-diene	No information	No information	
53880-05-0	CYCLOHEXANE, 5-ISOCYANATO-1- (ISOCYANATOMETHYL)-1,3,3-TRIMETHYL-, HOMOPOLYMER	No information	No information	
64742-95-6	Solvent naphtha (petroleum), light arom.	>1 - 10 mg/l	>1 - 10 mg/l	>10-100 mg/l
123-86-4	n-butyl acetate	No information	No information	
4098-71-9	$\hbox{$3$-lsocyanatomethyl-3,5,5-trimethylcyclohexyl-isocyanate}$	27 mg/l	No information	>72 mg/l

13. Disposal Considerations

13.1 WASTE TREATMENT METHODS: Do not burn, or use a cutting torch on, the empty drum. If recycling is not practicable, dispose of in compliance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

14.1 UN number UN1993

14.2 UN proper shipping name FLAMMABLE LIQUID, N.O.S.

Technical name (CONTAINS AROMATIC HYDROCARBONS, N-BUTYL ACETATE)

14.3 Transport hazard class(es) 3

Subsidiary shipping hazard Not applicable

14.4 Packing group

14.5Environmental hazardsNot applicable14.6Special precautions for userNot applicableEmS-No.:F-E, S-E

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

Not applicable

15. Regulatory Information

Safety, health and environmental regulations/legislation for the substance or mixture:

U.S. Federal Regulations: As follows -

CERCLA - Sara Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Flammable (gases, aerosols, liquids, or solids), Carcinogenicity, Acute Toxicity (any route of exposure), Skin Corrosion or Irritation, Respiratory or Skin Sensitization, Specific target organ toxicity (single or repeated exposure), Germ cell mutagenicity

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the U.S. Superfund Amendment and Reauthorization Act (SARA) of 1986 and 40 CFR part 372:

Chemical NameCAS-No.n-butyl acetate123-86-4Hexamethylene diisocyanate822-06-0

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA 12(b) components exist in this product.

U.S. Clean Air Act:

EPA Coating Category: INDUSTRIAL MAINTENANCE COATINGS

EPA VOC Content Limit (g/l): 450
Product VOC Content (g/l) 219
Thinning Recommendations: NONE

Application Recommendations: FOR PROFESSIONAL USE ONLY.

^{*} As per the federal EPA definition for coating categories in 40 CFR 59.401.

^{**} Grams of VOC per liter of coating product as applied (mixture of Part A and Part B) per ASTM D2369 Method E.

U.S. State Regulations: As follows -

New Jersey Right-to-Know:

The following materials are non-hazardous, but are among the top five components in this product.

No NJ Right-To-Know components exist in this product.

Pennsylvania Right-To-Know

The following non-hazardous ingredients are present in the product at greater than 3%.

No PA Right-To-Know components exist in this product.

California Proposition 65:

No Proposition 65 Chemicals exist in this product.

International Regulations: As follows -

* Canadian DSL:

All chemical ingredients included on inventory or exempt.

15.2 Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

16. Other Information

Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
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.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H350	May cause cancer.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Reasons for revision

Substance and/or Product Properties Changed in Section(s): 02 - Hazard Identification

08 - Exposure Controls/Personal Protection

11 - Toxicological Information Revision Statement(s) Changed

This Safety Data Sheet (SDS) has been revised to meet updated national hazard communication standards which have adopted the provisions of the UN GHS system. There have been both formatting and content changes based on the GHS classification (if applicable), Please review each section of

the SDS for specific changes. This Safety Data Sheet (SDS) has been revised to meet the new EU CLP requirements. There have been both formatting and content changes based on the CLP classification (if applicable), please review each section of the SDS for specific changes.

List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark; European Union Commission Regulation No. 1907/2006 on REACH as amended within Commission Regulation (EU) 2015/830;

European Union (EC) Regulation No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) and subsequent technical progress adaptations (ATP); EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes".

Acronym & Abbreviation Key:

CLP Classification, Labeling & Packaging Regulation

EC European Commission
EU European Union
US United States

CAS Chemical Abstract Service

EINECS European Inventory of Existing Chemical Substances

REACH Registration, Evaluation, Authorization of Chemicals Regulation

GHS Globally Harmonized System of Classification and Labeling of Chemicals

LTEL Long term exposure limit
STEL Short term exposure limit
OEL Occupational exposure limit

ppm Parts per million

mg/m3 Milligrams per cubic meter TLV Threshold Limit Value

ACGIH American Conference of Governmental Industrial Hygienists

OSHA Occupational Safety & Health Administration

PEL Permissible Exposure Limits VOC Volatile organic compounds

g/l Grams per liter

mg/kg Milligrams per kilogram

N/A Not applicable LD50 Lethal dose at 50%

LC50 Lethal concentration at 50%

EC50 Half maximal effective concentration
IC50 Half maximal inhibitory concentration
PBT Persistent bioaccumulative toxic chemical
vPvB Very persistent and very bioaccumulative

EEC European Economic Community

ADR International Transport of Dangerous Goods by Road RID International Transport of Dangerous Goods by Rail

UN United Nations

IMDG International Maritime Dangerous Goods Code
IATA International Air Transport Association

MARPOL International Convention for the Prevention of Pollution From Ships, 1973 as

modified by the Protocol of 1978

IBC International Bulk Container RTI Respiratory Tract Irritation

NE Narcotic Effects

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and

it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.