

Section 1: Identification of the Substance/Mixture and Company

Product identifier

Product form : Mixtures as Vialled Reagents
 Product name : HS-PC-MPN HemeScreen® MPN Confirmatory Reagents
 HS-PC-ANM HemeScreen® ANM Confirmatory Reagents
 Synonyms : HemeScreen® HRM Reagents, HemeScreen® Reagents, HemeScreen
 HRM Reagent Sets

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

Main use category: Components within a set of reagents used for genetic analysis of nucleic acid samples conducted in a professional diagnostic laboratory or research laboratory

Uses advised against

No additional information available

Details of the supplier of the safety data sheet

Precipio, Inc
 8813 F Street
 Omaha, NE 68127

For further assistance, please contact: technicalsupport@precipiodx.com

Emergency telephone number/Contact

Emergency Telephone 1-203-787-7888 Extension 581, Ayman Mohamed

SECTION 2: Hazards identification

Classification of the substance or mixture

Product form: Mixture
 Classification according to Regulation (EC) No. 1272/2008 [CLP]: Not classified

Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]: None
 Hazard pictograms: None
 Signal word: None
 Hazard statements: None

SECTION 3: Composition/information on ingredients

Substance

Not applicable

Mixture

P150004: 2X HRM Master Mix

Ingredient	CAS #	Hazardous Classification	Weight Percent*
Glycerol	56-81-5	Non-Hazardous	15-30%
Sodium Azide	26628-22-8	Non-Hazardous	<0.1%

* Remaining % proprietary.

The product contains no substances which at their given concentration, are considered to be hazardous to health. Sodium azide may react with lead and copper plumbing to form highly explosive metal azides. We recommend handling all chemicals with caution.

P100001: MPL Exon 10 Primer Mix
P100002: CALR Exon 9 Primer Mix
P100003: JAK2 Exon 12 Primer Mix
P100004: JAK2 Exon 13 Primer Mix
P100005: JAK2 Exon 14 Primer Mix

<i>Ingredient</i>	<i>CAS #</i>	<i>Hazardous Classification</i>	<i>Percent</i>
Oligodeoxyribonucleic acid, unmodified	N/A	Non-Hazardous	0.01%
Water	7732-18-5	Non-Hazardous	94.99%
EDTA	60-00-4	Eye Irrit. 2A; H319	5%

SECTION 4: First aid measures

Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Not expected to be an inhalation hazard under anticipated conditions of normal use. Remove to fresh air, keep the patient warm and at rest. If symptoms develop obtain medical attention.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If symptoms develop obtain medical attention.
First-aid measures after eye contact	: Rinse immediately with plenty of water for 15 minutes lifting lids occasionally. Remove contact lenses, if present and easy to do. If symptoms develop obtain medical attention.
First-aid measures after ingestion	: Not expected to be an ingestion hazard under anticipated conditions of normal use. Call a physician. Do not induce vomiting.
Notes to physician	: Treat symptomatically

Most important symptoms and effects, both acute and delayed

Symptoms/injuries	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/injuries after ingestion	: Ingestion may cause nausea, vomiting and diarrhea.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray.
Unsuitable extinguishing media	: None.

Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Carbon dioxide. Carbon monoxide. Nitrogen oxides.
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Advice for firefighters

Firefighting instructions	: Standard procedure for chemical fires. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	: As in any fire, wear self-contained breathing apparatus and full protective gear.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

Emergency procedures : Evacuate unnecessary personnel.
Ensure adequate ventilation.
Use personal protective equipment

For emergency responders:

Protective equipment : Wear suitable protective clothing and eye or face protection.
Emergency procedures : Ensure adequate ventilation.

Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Wash spill area with soapy water.

Reference to other sections

SECTION 8: Exposure controls/personal protection. SECTION 13: Disposal considerations.

SECTION 7: Handling and storage

Observe all federal, state and local regulations. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep tightly closed. Store in a cool dry place. Use prudent laboratory practices for handling and storage of chemicals.

Precautions for safe handling

Precautions for safe handling : Always wear recommended Personal Protective Equipment. No special handling advice required. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Avoid contact with skin, eyes and clothing.

Conditions for safe storage, including any incompatibilities

Storage conditions : Use in a laboratory hood or other ventilated device. Use prudent laboratory practices for handling chemicals. Keep container closed when not in use.
Incompatible products : See Section 10.
Storage temperature : -18 to -25 °C

Specific end use(s)

A component of systems for genetic analysis of nucleic acid samples in a professional diagnostic or research laboratory.

SECTION 8: Exposure controls/personal protection

<i>Chemical Name</i>	<i>OSHA PEL</i>	<i>OSHA PEL (Ceiling)</i>	<i>ACGIH OEL (TWA)</i>	<i>ACGIH OEL (STEL)</i>
Glycerol	15 mg/m ³ 5 mg/m ³	none	10 mg/m ³	none
Sodium azide	none	none	none	none

Exposure controls

Appropriate engineering controls : Provide adequate ventilation, including appropriate local extraction, to ensure that occupational exposure limits are not exceeded.

Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: Standard EN 374 - Protective gloves against chemicals.
Eye protection	: Standard EN 166 - Personal eye-protection. Safety glasses.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazard protection	: Not required for normal conditions of use.
Environmental exposure controls	: Avoid release to the environment.
Other information	: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

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P100003: JAK2 Exon 12 Primer Mix
P100004: JAK2 Exon 13 Primer Mix
P100005: JAK2 Exon 14 Primer Mix

Physical state	: Liquid
Color	: Colorless
Odor	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Solubility	: Soluble.
Oxidizing properties	: No data available

P150004: 2X HRM Master Mix

Physical state	: Liquid
Color	: Light Yellow
Odor	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Solubility	: Soluble.
Oxidizing properties	: No data available

Other information

No additional information available

SECTION 10: Stability and reactivity

Reactivity

All components are stable under normal conditions.

Chemical stability

All components are stable under normal conditions.

Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

Sodium azide may react with lead and copper plumbing to form highly explosive metal azides. We recommend handling all chemicals with caution.

Conditions to avoid

Avoid contact with heat, sparks, flames or other sources of ignition.

Incompatible materials

Strong oxidizing agents, strong acids, strong bases, metals.

Hazardous decomposition products

None under normal use.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity:

P150004: 2X HRM Master Mix

<i>Chemical Name</i>	<i>LD50 (oral, rat/mouse)</i>	<i>LD50 (dermal, rat/rabbit)</i>	<i>LC50 (inhalation, rat/mouse)</i>
Glycerol	= 12600 mg/kg (Rat)	>21900 mg/kg (at)	no data available
Sodium azide	= 27 mg/kg (Rat)	no data available	no data available

Principle Routes of Exposure/Potential Health Effects

Eyes : May cause eye irritation with susceptible persons.
 Skin : May cause skin irritation in susceptible persons.
 Respiratory /inhalation : May be harmful by inhalation
 Ingestion : May be harmful if swallowed
 Carcinogenicity : None
 Mutagenic Effects : None
 Reproductive toxicity : None
 Specific target organ toxicity (single exposure) : No known effects under normal use conditions.
 Specific target organ toxicity (repeated exposure) : No known effects under normal use conditions.

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 P100005: JAK2 Exon 14 Primer Mix

Principle Routes of Exposure/Potential Health Effects

Eyes : Possible irritant
 Skin : Possible irritant
 Respiratory /inhalation : Possible irritant
 Ingestion : Possible irritant
 Carcinogenicity : No information available
 Mutagenic Effects : No information available

Reproductive toxicity : No information available
 Specific target organ toxicity (single exposure) : No information available
 Specific target organ toxicity (repeated exposure) : No information available

SECTION 12: Ecological information

Toxicity

P150004: 2X HRM Master Mix

<i>Chemical Name</i>	<i>Freshwater Algae Data</i>	<i>Water Flea Data</i>	<i>Freshwater Fish Species Data</i>	<i>Microtox Data</i>	<i>log Pow</i>
Glycerol 56-81-5	-	Daphnia magna EC50>500 mg/L (24h)	-	-	log Pow-1.76

Ecotoxicity

No information available

Persistence and degradability

Inherently biodegradable

Bioaccumulative potential

Does not bioaccumulate.

Mobility in soil

No information available.

SECTION 13: Disposal considerations

Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations..
 Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

UN number

No dangerous good in sense of transport regulations

UN proper shipping name

Proper Shipping Name (ADR/RID) : Not applicable
 Proper Shipping Name (IATA) : Not applicable
 Proper Shipping Name (IMDG) : Not applicable

Transport hazard class(es)

Not applicable

Packing group

Not applicable

Environmental hazards

Other information : No supplementary information available.

Special precautions for user

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

P150004: 2X HRM Master Mix

<i>Component</i>	<i>TSCA</i>
Glycerol 56-81-5 (15 – 30%)	Listed
Sodium azide 26628-22-8 (<0.1%)	Listed

U.S. Federal Regulations

SARA 313 Components

This product contains the following toxic chemical(s) subject to the notification requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986. This law requires certain manufacturers to report on annual emissions of specified chemicals and chemical categories. Please note that if you repackage, or otherwise redistribute, this product to industrial customers, a notice similar to this one should be sent to those customers:

<i>Chemical Name</i>	<i>CAS-No</i>	<i>Weight %</i>	<i>SARA 313 – Threshold Values</i>
Sodium azide	26628-22-8	<0.1	1.0

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contains HAPs.

U.S. State Regulations

<i>Chemical Name</i>	<i>Massachusetts - RTK</i>	<i>New Jersey - RTK</i>	<i>Pennsylvania - RTK</i>	<i>Illinois - RTK</i>	<i>Rhode Island - RTK</i>
Glycerol	Listed	Listed	Listed	-	Listed
Sodium azide	Listed	Listed	Listed	-	Listed

California Proposition 65:

This product does not contain chemicals listed under Proposition 65

WHMIS Hazard Class:

Non-controlled

For all other item numbers:

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311-312 Hazards

Acute Health Hazard (Edetic acid)

<i>Chemical</i>	<i>State</i>	<i>CAS-No</i>	<i>Revision Date</i>
Edetic acid	Pennsylvania	60-00-4	2007-03-01
	New Jersey	60-00-4	2007-03-01
	Massachusetts	60-00-4	2007-03-01

SECTION 16: Other information

Data sources	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixturejs, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Abbreviations and acronyms	: ADR (Accord européen relatif au transport international des marchandises Dangereuses par Route). CAS (Chemical Abstracts Service) number. IARC (International Agency for Research on Cancer). IATA (International Air Transport Association). IMDG (International Maritime Dangerous Goods Code). RID (Règlement concernant le transport international ferroviaire de marchandises).
Other information	: None.

The information and recommendations contained herein are based upon data believed to be up-to-date and correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information and recommendations contained herein. We accept no responsibility and disclaim all liability for any harmful effects that may be caused by (incorrect) use, handling, purchase, resale, or exposure to our product. Customers and users of our product must comply with all applicable health and safety laws, regulations, and orders. In particular, they are under an obligation to carry out a risk assessment for the particular work places and to take adequate risk management measures in accordance with the national implementation legislation of EU Directives 89/391 and 98/24.