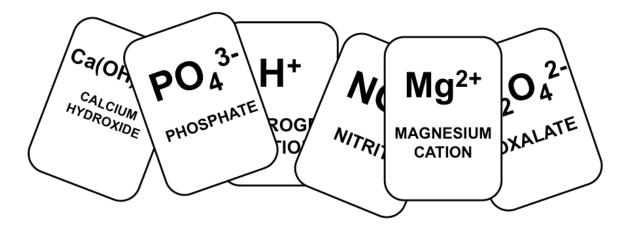
## CHEMICARDS: *PrecipitACTION*

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Description of the cards:

Each deck contains:

48 CARDS

20 anions

20 cations

4 bonus cards (ammonium, oxide, phosphate, hydride)

Rules of the game (to be played in decks):

- 1. Shuffle the deck of cards thoroughly to ensure cards are well mixed.
- 2. Each player receives 3 cards to start. The deck is placed cards down between the players. The top card is placed face up adjacent to the deck.
- 3. The player (who is not the dealer) then commences.

The player can they pick up the card with one or more of his cards if they can make a neutral ionic compound (*e.g.*, HCl, NaCl).

One can also remove the card by generating water (*i.e.*, picking up a H<sup>+</sup> with an OH<sup>-</sup> or visa versa). If the player chooses to do this, the cards are simply moved to the side and will not be a part of their collected pile. However, should a player generate water (H<sub>2</sub>O), they can then expose a new card adjacent to the deck and subsequently add it to

their pile if they are able to generate a neutral ionic compound with a card (or cards) they have in their hands. **NOTE**:

In the case where a player pulls the hydride (H<sup>-</sup>) card (or the hydride card appears face up between the players), this card cannot be used to generate H<sub>2</sub> with a H<sup>+</sup> card. The bond between two H atoms in a H<sub>2</sub> molecule is covalent.

- 4. Each time a player is able to create a new neutral ionic compound, they add it to their pile and expose a new card adjacent to the deck. They do not take a new card to have in their hands. Should they use up all the cards in their hands, they simply expose a new card adjacent to the deck and play is transferred to the other player.
- 5. When a player cannot pick up the exposed card with the cards they have in their hands, they must pull another card from the deck and add it to the cards they are holding. They cannot immediately use this card to try to pick up the exposed card. Rather, play switches over to the other player.
- 6. Once there are no cards left in the deck (i.e., all cards have been exposed) and both players cannot pick up the exposed card, all cards in players hands are discarded and placed to the side.

## **Allocation of Points:**

Should a player pick up any one of the bonus cards (ammonium, oxide, phosphate, hydride), they are awarded 1 point.

At the end of the game, the person with the most collected cards overall is awarded 2 points.

The player with the most strong acids is awarded 1 point.

The player with the most strong bases is awarded 1 point.

The player with the most insoluble compounds is awarded 2 points.

The winner of the game is the first to reach 21 points (as in basketball).

Cannot use 2 different cations or 2 different anions!!!

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